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DUN'S REVIEW
and Modern Industry

Volume 70 No. 5

November 1957

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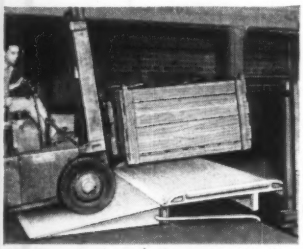

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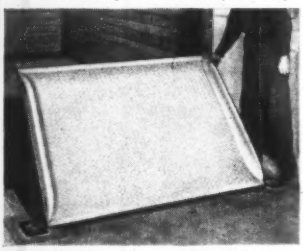

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THE COVER

Charts and statistics are valid business tools—but in the end it still takes a seasoned executive to weigh the problem, make the right decision, and act. This month's cover artist: Robert Hallock.

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1958 CHEVROLET TASK·FORCE TRUCKS!

CHEVROLET

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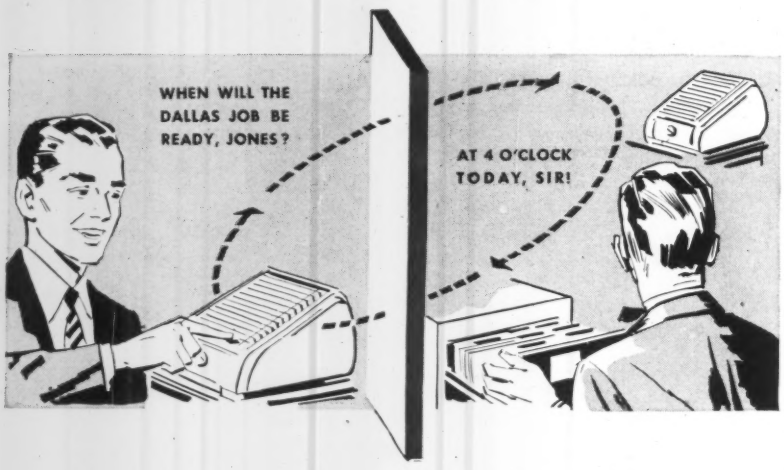

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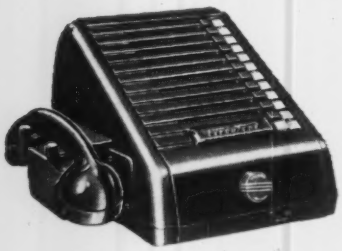

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• An executive who was going trout fishing for the first time had equipped himself with the best of everything—rods, flies, line, bait, waders up to his armpits, and a book of instructions on how to lure the rainbow and the speckled brown fighters of the eddies and white water. Hours later, coming out of the stream with wet underwear, no fish, and a bad disposition, he met a friend who consoled him: "The trouble with you, Bill, is you're too well organized." That is the theme of Carl Hevel's article in this issue. He asks management bluntly: "Are you over-organized?" Or, to change the metaphor from fishing to baseball, "Do you have too much wind-up and not enough delivery?"

• Is "decentralization of responsibility" another term for "passing the buck" by top management? Next month Louis A. Allen, whose article "What Puts Them Out Ahead?" was a feature of our July issue, will point out some of the pitfalls in decentralization—and show that in some cases it has resulted only in a loss of top management control. To tip Mr. Allen's hand with a phrase: "Decentralization of responsibility is often confused with geographical dispersion." The dangers of generalization are obvious, but "the shorter the leash the stronger the grip" often remains a good motto for the newer and middle-size companies, where tight controls are identified with profitable management.

• Now that Uncle Ivan has a yo-yo spinning around the earth that he would like to own and operate on his own economic, political, and religious terms—and Uncle Sam is a bit chagrined that wishful thinking didn't make him first on this extra-terrestrial adventure—it seems like time to have a look at the economic resources of the two powers that divide the political responsibility for world peace and earthly survival. In the December issue of DR&MI, Dr. Harry Schwartz, an eminent authority on Russia's economic resources,

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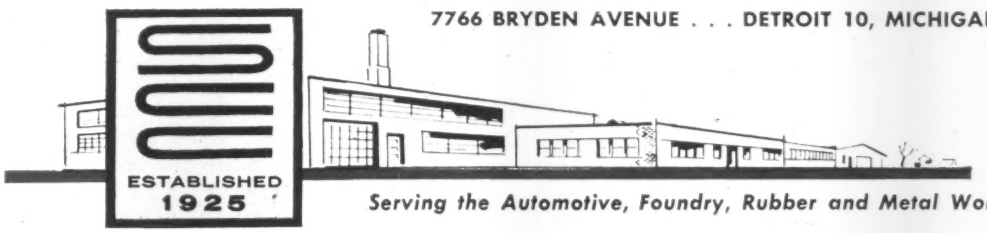

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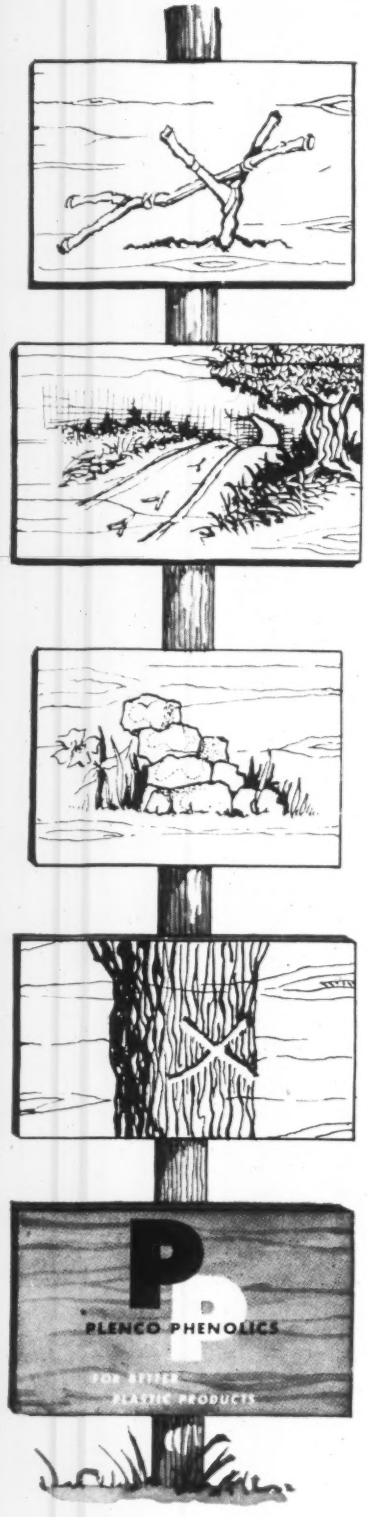
The trail is well-marked for alert designers and manufacturers who seek the help of quality phenolic molding compounds



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will spell out the competitive position of the U.S.S.R. and the U.S.A. in terms of industry capacity and productivity. Dr. Schwartz's article will be amplified with charts and statistics that are clear in inference and dramatic in impact. He speaks with first-hand knowledge of his subject, since he is not only an economist and a journalist but a linguist who can talk to the Russians in their own language.

• A wit recently said, "Men are interested in the future because they hope to spend most of their lives there." The statement should perhaps not be taken at face value, since nobody ever realized that ambition. The future is only the carrot dangling on the stick to lure us onward. It is only by reverie that we live in the past, and by imagination that we reach into the future, and it is the experience of the past and the hopes of the future that make the present endurable. This is the season of the year when the prophets wipe off the crystal ball, examine the bands on the woolly bear caterpillars, and dust off the statistics to get a peek at the future of weather, politics, and business. We at DR&MI are no exception. A feature of our December issue will be an authoritative, hot-off-the-griddle report on business men's expectations for 1958 by our specialists on the business conditions staff. "Business Men's Expectations" is a compilation of opinions of some 1,400 manufacturers, wholesalers, and retailers, as expressed in interviews with DUN & BRADSTREET reporters. It is a continuing quarterly survey that has been conducted for the past eight years.

• Giant labor is beginning to learn that it is an integral part of big business, even to the extent of sharing some of the problems of management. With the accumulation of pension funds and other cash assets, labor must invest in revenue-providing securities—common stocks among them. The profit on industrial stock depends on good management, and good management of a plant requires a high level of productivity. That's where the cycle ends and the embarrassment begins. It can be tough on the union officer entrusted with an investment responsibility if he has to consider the cost of featherbedding and restricted production. —A.M.S.

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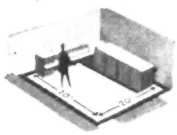

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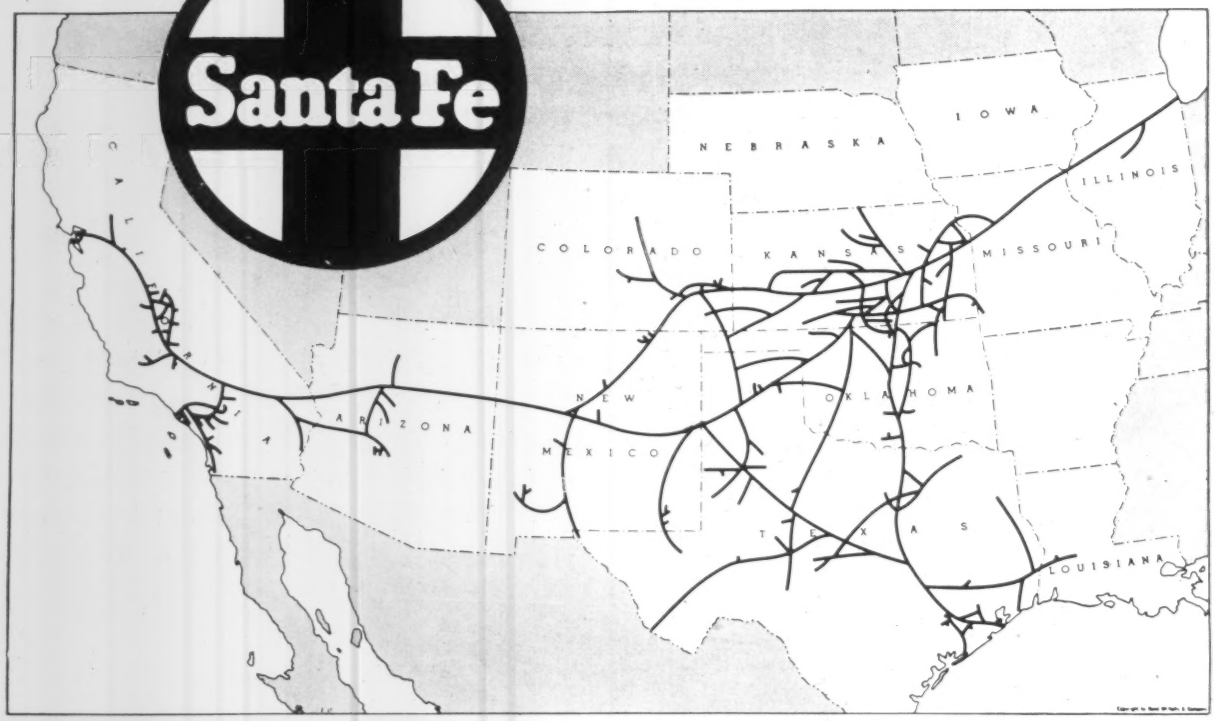

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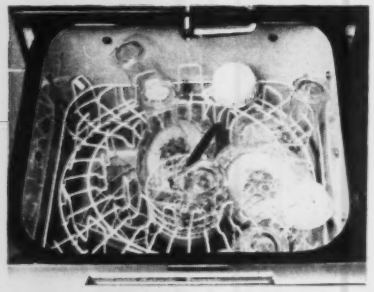

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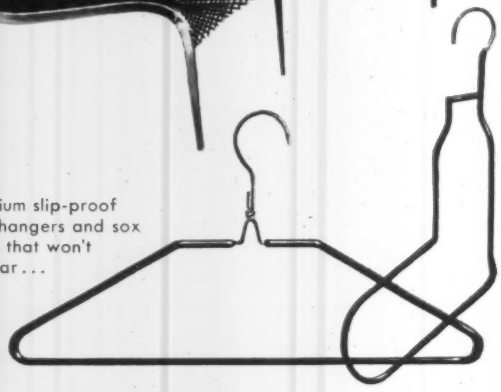

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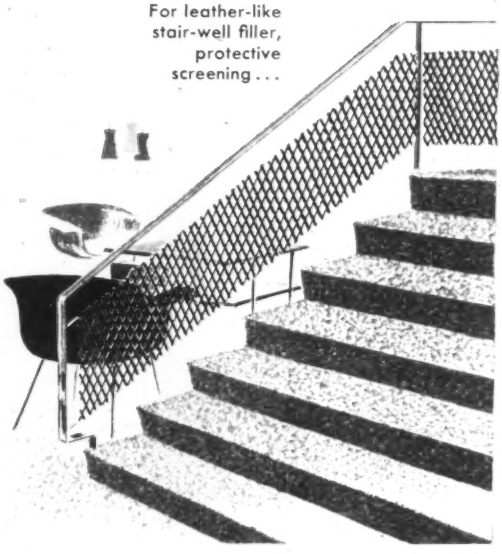

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WASHINGTON, D.C.—Official quarters here seem to feel that a perceptible change in the over-all business outlook has been taking place. A month ago, reports reaching Washington reflected persisting disquiet over the health of the national economy, and statistics suggested that business activity was indeed slowing down. But recent returns have told a more encouraging story on consumer expenditures, employment levels, and the agricultural outlook. All this has been heartening to Government experts who have refused to regard the earlier developments as particularly ominous.

In fact, none of the bearish sentiment cropping up in various quarters is shared by Administration officials. They feel that their efforts to check inflation are taking hold and that a more stable situation is in prospect. They realize that interest rates, limitations on public works, cutbacks in defense spending, and other anti-inflation measures have an unequal impact and do curtail some activities. But they feel that the benefits greatly outweigh the damage and that decided progress toward stability is being made.

Officials see no reason why 1958 should not be as good a business year as 1957. They expect the declines in Government and capital goods spending to continue, but believe they will be offset largely by consumer buying.

As a result of the International Monetary Fund meetings in Washington, financial leaders from 64 countries have returned to their homes determined to take additional steps to retard inflation. It now is realized that most countries must use drastic measures to pay for past economic excesses, and the resultant curtailment of imports is expected to cause some decline in U.S. exports.

Reaffirmation in the most positive terms that the pound sterling will not be devalued has had a stabilizing effect on the payments problem, as did the German pledge that no upward revaluing of the mark is being contemplated. Germany does not want its strong creditor position to put undue strain on Europe's monetary structure.

Prewar census estimates of future U.S. population increases missed the mark badly. The upsurge in population growth is being called "an economic chain reaction second to none." In 1946, it is said, there was "an unprecedented rush from a state of war to a state of matrimony."

Since 1947 there has been an increase of 19 per cent in the population and 27 per cent in the number of households. Household formation declined last year, and housing starts declined with it. But the high birth rate between 1945 and 1950 makes a strong upturn in household formation probable in the 1960's.

Many of the suggestions made at the President's Conference on Small Business are expected to be embodied in the State of the Union message, which will be presented to the new session of Congress shortly after it meets in January.

As President Eisenhower advised in calling the meeting, special attention was given to the need for more research. It was pointed out that 50 per cent of the sales of many companies come from products that did not exist before World War II.

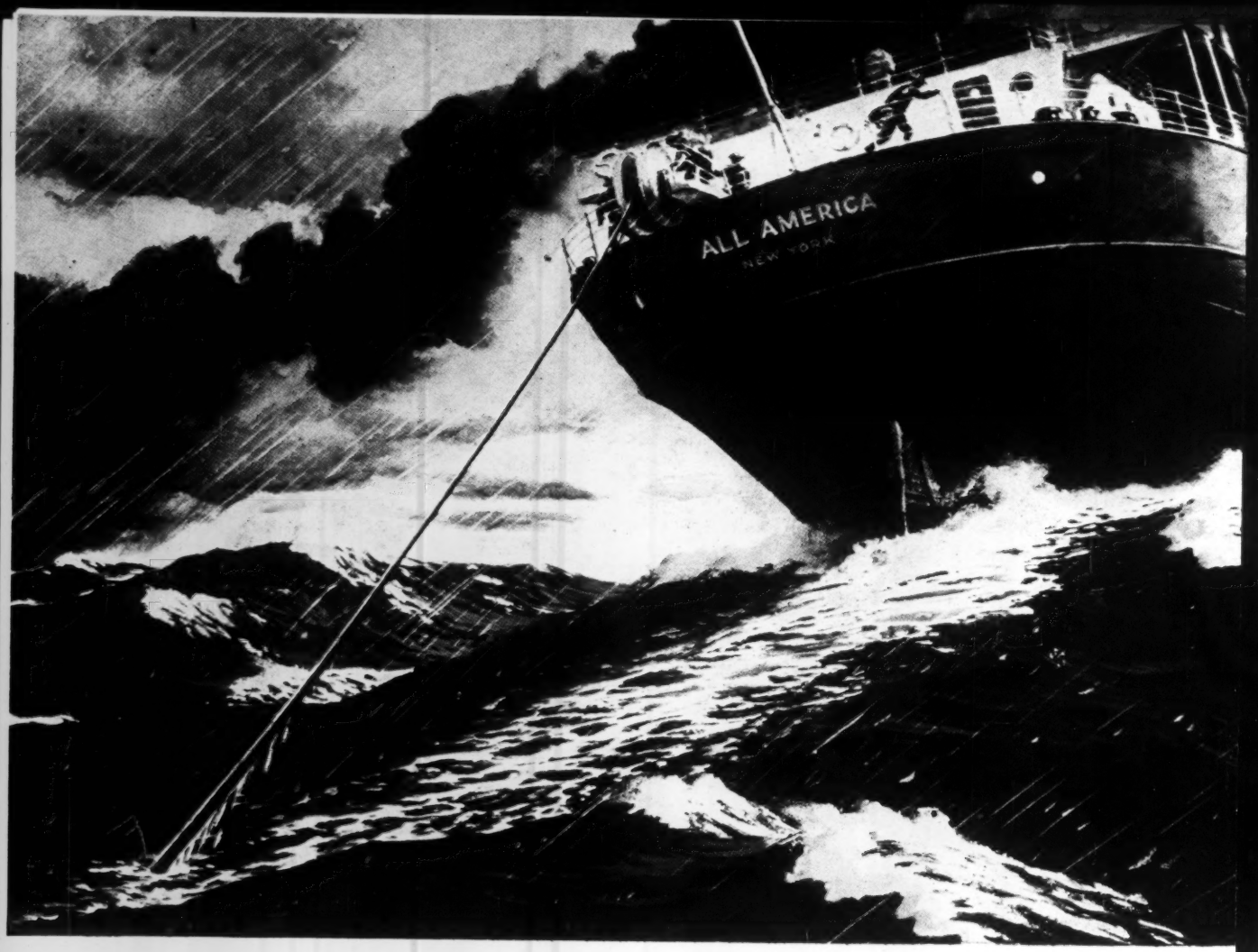
The 996 delegates, each of whom paid $25 to attend, were a cross-section of the business community. Reference to big companies as the "big bad wolves of business" was characterized as the excuse of "the incompetent and special pleader," and subsidizing incompetence in either management or labor was denounced. The fact that there is now one business for each 43 people in the population was cited as evidence that small business has not been squeezed too badly.

Two parts of a three-section Federal Reserve report on small business—which will cover among other things the lending policies governing small business credit—will also go to Congress early in January. Part 3, outlining the experiences of borrowers, will not be ready until later, since unincorporated business concerns greatly outnumber the incorporated and are difficult to sample.

The Department of Labor calculates that gross national product will increase by 50 per cent by 1965, and that 10 million more workers will be needed by that year.

A more highly skilled labor force will also be necessary. Jobs for laborers and farm workers will decline, and there will be a greater

continued on page 16



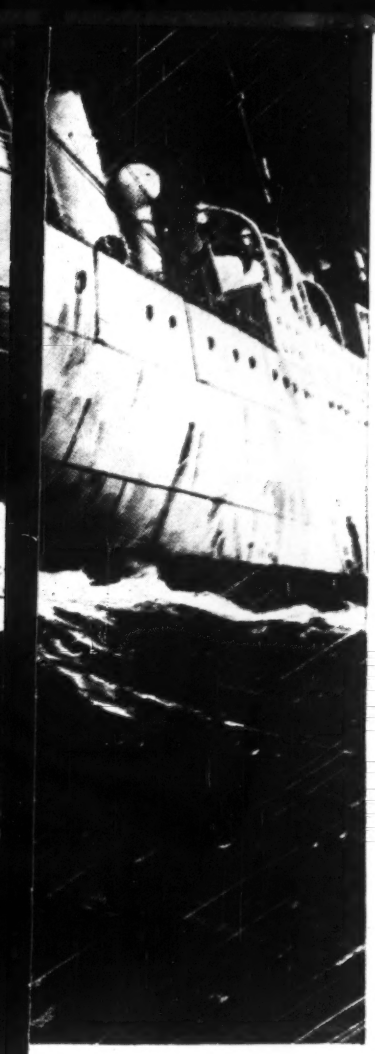
How BAKELITE Plastics do many jobs to

Help communications shrink

A lot of jack boards in telephone exchanges are molded of phenolic plastic. So are most headsets and the telephones in homes and offices. Outside, wires and cables covered with polyethylene and vinyl plastic keep service going through summer heat and winter storm. Because of this insulation's light weight, longer spans with fewer poles are possible.

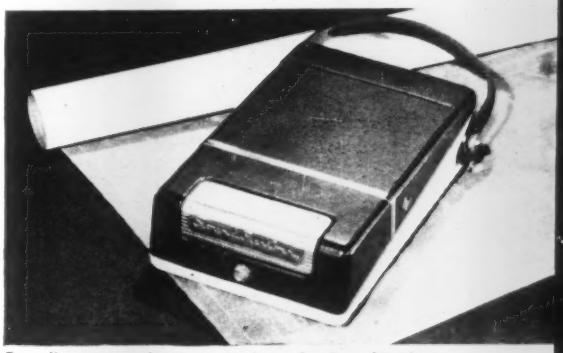
DID YOU KNOW:

Printing plates, from which many publications are printed, are made of BAKELITE Plastic, giving fine reproduction at low cost . . . and with considerable savings in shipping weight.



It's easy to get the connection when electronic equipment is built with printed circuits. They make the "wiring" simple and compact, a big help in reducing size. Their base is a laminate of phenolic or epoxy resin. Acid-bath etching and the heat of dip-soldering don't hurt it. Other wiring is insulated and color-coded with polyethylene or vinyl plastic. Radio cabinets and cases are molded from phenolics or colorful styrenes, while phonograph records of vinyl reproduce with superb fidelity and are practically unbreakable.

Communications under the sea travel across the ocean floor through cables insulated with BAKELITE Brand Polyethylene. Moisture penetrating anywhere along the way could wreck transmission. Polyethylene shuts it out completely. Polyethylene's toughness and flexibility also prove valuable properties while ocean cables are being unreeled and laid.



Traveling companion to executives, the SoundScriber "200" has an exterior finish that can knock about and still look good. It's an organosol coating based on BAKELITE Vinyl Resin—a tough, heavy-textured coating that gives the case a leathery effect. Textured organosol coatings are being applied to products ranging from automobile dashboards to swivel-chair bases. They're just one of the coatings made from a BAKELITE Resin. Phenolics, styrenes, epoxies, and polyethylenes are also the bases for coatings and finishes of all kinds.

space and time

By wire, through the air, or as the written word, communication today relies heavily on the useful properties of plastics.

As the science of communications grows, it draws society closer together. To perform this mission, it constantly seeks the aid of new materials. And since progress in plastics has matched progress in communications, plastics have become more and more essential to the task.

Plastics have superior insulating properties. Plastics have durability. Plastics can make things lighter, as well as stronger. Plastics have dimensional stability and chemical resistance. Plastics provide color. In fact, there is an almost unlimited variety of useful properties in the hundreds of plastics produced by Bakelite Company, and they are serving practically every industry you can think of.

If your product calls for a plastic, this one convenient source enables you to select from phenolics, vinyls, styrenes, impact styrenes, silicones, epoxies, and polyethylenes. And you can call on 47 years of Bakelite Company experience in the plastics field for guidance in finding the best material for your needs.

A LEADER IN THE WORLD OF PLASTICS...

BAKELITE
BRAND
PLASTICS

UNION CARBIDE

BAKELITE COMPANY, *Division of Union Carbide Corporation,* 30 East 42nd Street, New York 17, N. Y.

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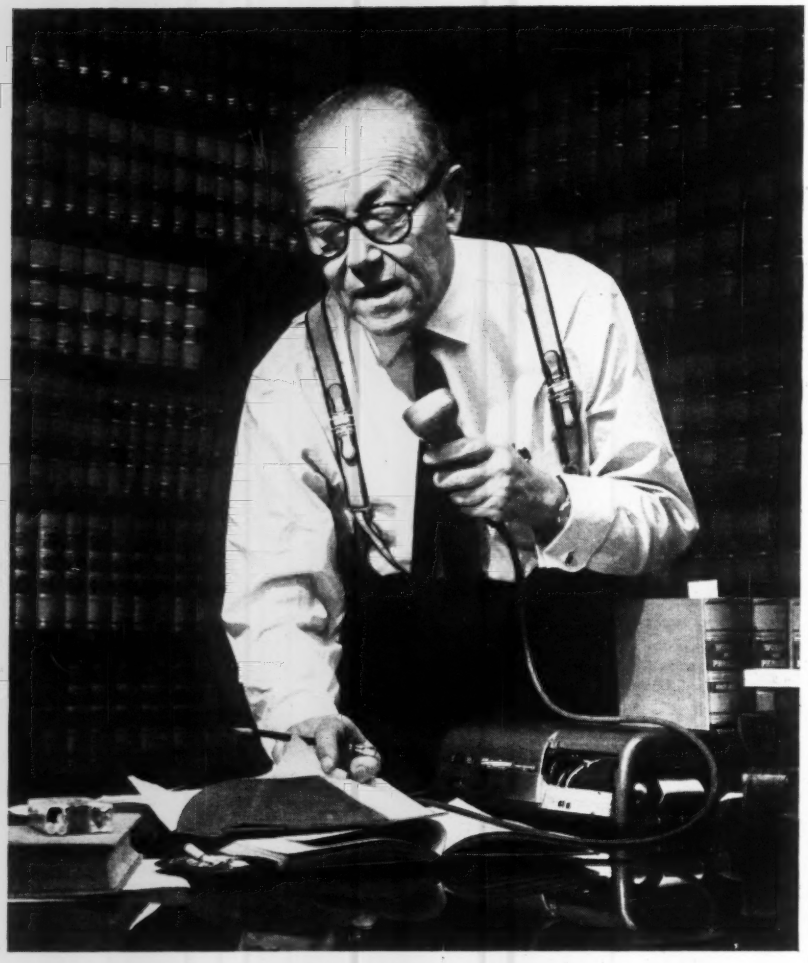

Research is easier

with the Dictaphone Time-Master and Dictabelt Record

EASIEST way to dig for facts: make "talking notes" with the Dictaphone TIME-MASTER dictating machine.

Same thing's true of *all* paper work. Pick up the mike—think out loud. Instantly, work's off your mind—and on Dictaphone's exclusive DICTABELT record. DICTABELTS are flexible, filable, unbreakable, mailable as letters.

Recording is visible so you can't lose your place . . . permanent, so dictation can't be changed.

Call your local Dictaphone office for a TIME-MASTER demonstration, or write Dictaphone, Dept. B, 420 Lexington Ave., New York 17, N. Y.

The Dictabelt record—main reason why the Dictaphone Time-Master far outsells all other dictating machines.

DICTAPHONE CORPORATION

Service you can depend on the world around

In Canada, write Dictaphone Corporation, Ltd., 204 Eglinton Ave. East, Toronto . . . In England, Dictaphone Company Ltd., 17-19 Stratford Place, London W.1. Dictaphone, Time-Master and Dictabelt are registered trademarks of Dictaphone Corporation.

need for engineering and scientific personnel, teachers, doctors, and clerical, sales, skilled, and semi-skilled workers.

Even now, the Department reports, more and more employers are reluctant to take on a beginner who has not had at least a high school education, and many jobs are open only to those who have had college training. Postgraduate work is a prerequisite in a small but increasing number of cases.

In addition, some skills are becoming obsolete with changes in technology. Morse telegraphers are among those hit by this trend.

A larger number of women in the workforce is also foreseen as greater use of machinery reduces the need for physical strength. They will, it is estimated, make up more than half the 10 million new jobholders.

A Federal Reserve study of accelerated amortization has led to the suggestion that it might be employed as a counter-cyclical measure in periods of recession. Since the study shows that fast amortization tends to feed a boom during a period of intense utilization of resources, it is thought that permitting companies to recover capital expenditures sooner could well stimulate those expenditures during a period of contraction.

Sixteen Federal and local agencies are cooperating in a monumental economic survey covering 48 counties in the basin of the Delaware river. The objective is to estimate how much industrial growth the resources of the region can support. Completion date is set for June 30, 1958.

This study probably will be the forerunner of a similar report in California.

Missiles have taken on an economic importance that has led to requests that they be shown as a separate item on the industrial production index. They are now included in the aircraft category.

Paul Wooton

Talk your way to a shorter day

Yours . . . This world-famous

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Stenorette Dictating Machine

FOR LESS THAN THE PRICE OF A STANDARD OFFICE TYPEWRITER!

The Electronic Stenorette

—the first really new dictating machine in 18 years!

Dictate, transcribe, erase, correct, start again after an interruption, repeat a word or an entire report, *all with a flick of your finger!* STENORETTE speeds your work, prevents mistakes, saves you valuable hours each day. Here's everything you've always wanted in a dictating machine *at half the cost of the major dictating machines!* It's a fully-equipped, precision business machine. It costs only **$179.50**

FEDERAL EXCISE TAX EXTRA

(STENORETTE actually pays for itself in more accurate, faster office operation! See next page)

300,000 NOW IN USE THROUGHOUT THE WORLD.
Executives everywhere prefer the Stenorette to any other dictating machine *regardless of price.* And no wonder! Stenorette gives you all the features of units costing twice as much and other advantages (automatic error erasure, dual function as dictator and transcriber, re-usable tape, and many more) you can't get elsewhere at any price. COMPLETELY PORTABLE: Weight 11 lbs., 10 oz. Goes where you go. Just plug it in at home, in office, even in a *moving car.* It's always ready when you are. PUSH-BUTTON CONTROL: Easiest machine for you and your secretary too!

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No postage required. Please send no money.
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Please rush, without obligation, a copy of your FREE BROCHURE explaining how the Stenorette can make my office work go faster, more efficiently, and more accurately.

PLEASE PRINT

Company _____
(If you are interested for personal use, ignore this line)

Address _____

City _____ Zone ____ State _____

Individual _____

Title _____

☐ Send me name of nearest Stenorette Sales/Service Center.

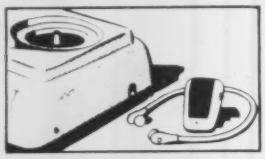
AT LAST!

A real dictating machine at a price every office can afford!

How often have you seen a *price* in an ad for a complete dictating machine? Probably never. In fact, other manufacturers, realizing that their prices are so high, leave out all mention of purchase price or suggest that you can *rent* their machines. But you can own your Stenorette—because this electronic miracle sells for half the price of comparable major dictating machines. *It even costs less than a standard office typewriter!* That's why every office—even the smallest—can afford a Stenorette.

Yours for only **$179.50**

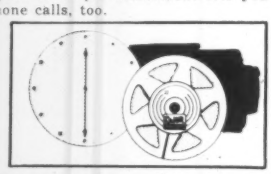
Transcribing accessories at slight extra cost. Federal Excise Tax not included.



DICTATE AND TRANSCRIBE WITH ONE MACHINE! A single Stenorette does it all. Just plug in the sensitive "mike" and dictate. Transcribing accessories (listening device and choice of footpedal or typewriter control) designed for the convenience and comfort of secretaries are used with the same machine.

COSTS LESS...ACTUALLY DOES MORE! Despite its amazingly low price, the world-famous Stenorette does everything the highest-priced units do—and more! It gives you every control, every time-saving convenience you can think of. And, because it's the most modern of all dictating machines, it's the easiest, simplest, fastest of all to use. Imagine! You dictate onto revolutionary magnetic tape—the finest medium for recording the human voice. *And you erase errors automatically!* Just re-record over the words to be corrected. You can dictate continuously for 30 whole minutes. You never have to worry about the expensive resurfacing and/or replacement needed for old-fashioned belts, discs, and cylinders. And Stenorette's foolproof PUSH-BUTTON CONTROLS make every step automatic.

REALLY PORTABLE...WORKS ANYWHERE! The amazing Stenorette weighs only 11 pounds, 10 ounces, takes no more desk space than your briefcase. It's the only dictating machine that even operates perfectly in a moving car! (There's no "needle.") Take it with you to important business meetings; Stenorette's exclusive "Conference" setting lets you record as many voices as you wish. A simple attachment lets you record telephone calls, too.



REMOTE-CONTROL ERASER! Make changes without touching the machine. Relax in your chair, press the button on the "mike," listen to your last words—and *record the correct words right over the error.*

USE THE SAME TAPE OVER AND OVER AGAIN! Dictate for a full 30 minutes. Transcribe. Start again with the same tape if you wish. Stenorette is as economical to *use* as to *buy*.

CHOICE OF TRANSCRIBING ACCESSORIES. Double or single earpieces. Playback control with bar on typewriter or pedal under desk.

WORLD'S EASIEST TRANSCRIBING. Tens of thousands of secretaries operated their Stenorettes flawlessly *within five minutes after they first tried it.* And they all love the clear, restful Stenorette natural pleasant "playback" essential for correctly typed transcription.

FOOLPROOF INDEXING! Typist knows exactly where to start listening, where to enter changes recorded separately, etc.

MOST SENSITIVE DICTATING MICROPHONE. Another Stenorette exclusive. Shout or whisper—hold the microphone wherever you wish. Your voice will play back clearly at its natural level.

NATIONWIDE SALES SERVICE. Hundreds of office managers and purchasing agents (firm names on request) have purchased scores, even hundreds of Stenorettes for their firms. This is ample evidence of their confidence in DeJUR-Grundig's nationwide network of factory-trained Sales/Service Centers. There's one near you.

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TEAR OUT AND MAIL THIS CARD FOR YOUR FREE COPY

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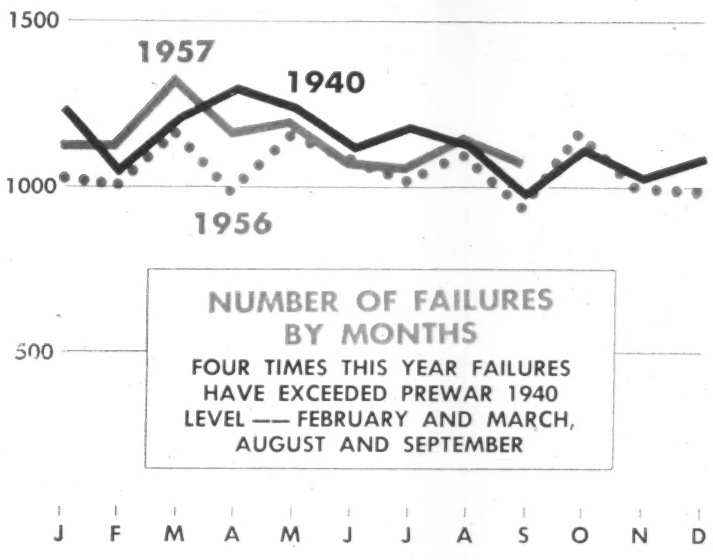

FAILURES: *The Casualty Rate Rises*

BUSINESS FAILURES, although they dipped 6 per cent below August in September, exceeded those of any September since 1933. Numbering 1,071, they were 15 per cent heavier than in September of 1956, the sharpest rise over year-ago levels since last April. In the first nine months of 1957, a total of 10,364 businesses failed—9 per cent more than in the first three quarters of 1956.

The failure rate, seasonally adjusted in Dun's Failure Index, continued upward to a new postwar high of 59 per 10,000 concerns listed in the Dun & Bradstreet *Reference Book*. In September 1956, casualties were occurring at the rate of 51 per 10,000. In prewar September 1940, however, the rate was more severe—65 per 10,000 listed enterprises.

Dollar liabilities, ending a four-month decline, edged up 4 per cent over August, to 45.4 million. The increase was concentrated in failures involving losses above $100,000. Casualties in all smaller size groups were less numerous than in August. More concerns succumbed than last year in all liability classes, but those with losses under $5,000 suffered the greatest rise.

Manufacturing and retailing accounted principally for the August-to-September decline. In fact, fewer retail stores failed than in any other month this year. There was a marked drop in the general merchandise trade, furniture, and eating and drinking places. But casualties in the appliance and automotive lines remained close to the high levels of the previous month. Among manufacturers, the failure picture was brighter in the textiles and apparel industry, where the total was the lowest in two years, and in the chemical and leather industries. On the other hand, casualties among lumber and furniture manufacturers remained relatively high, and the number in the food industry climbed to a nineteen-month high.

More businesses died than a year ago in all industry and trade groups. Manufacturing and service casualties

THE FAILURE RECORD

	Sept. 1957	Aug. 1957	Sept. 1956	% Chg.†
DUN'S FAILURE INDEX*				
Unadjusted	50.5	48.1	44.2	+14
Adjusted, seasonally	58.7	53.4	51.4	+14
NUMBER OF FAILURES	1071	1145	932	+15
NUMBER BY SIZE AND DEBT				
Under $5,000	159	163	127	+25
$5,000–$25,000	529	565	487	+9
$25,000–$100,000	296	342	245	+21
Over $100,000	87	75	73	+19
NUMBER BY INDUSTRY GROUPS				
Manufacturing	182	204	140	+30
Wholesale Trade	96	97	85	+13
Retail Trade	535	588	489	+9
Construction	164	165	146	+12
Commercial Service	94	91	72	+31
	(*LIABILITIES in thousands*)			
CURRENT	$45,420	$43,514	$39,313	+16
TOTAL	45,463	43,810	39,820	+14

*Apparent annual failures per 10,000 enterprises listed in the Dun & Bradstreet *Reference Book*.

†Per cent change, September 1957 from September 1956.

In this record, a "failure" occurs when a concern is involved in a court proceeding or in a voluntary action likely to end in loss to creditors. "Current liabilities" here include obligations held by banks, officers, affiliated and supply companies, or the governments; they do not include long-term publicly held obligations.

OUTPERFORMS and Out Values all lift trucks in its class

Regardless of Price!

PRICE
$3975.00
"WE INVITE COMPARISON"

1500 lbs
LOAD CAPACITY

ENGINEERED YEARS AHEAD

- Complete bearing control throughout
- Synchronized 12-volt heavy duty system
- Feather-controlled stops
- Equipped with automatic charger and heavy duty industrial battery
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OPERATES IN 28" AISLES

APPLICATIONS

- Hydraulic loading, unloading, stacking, moving, any type of material... in large or small plants.

MORE THAN 40 BIG JOE MODELS

- Range up to 2000 lbs. capacity
- Lifting heights to 130"

NEW 24-PAGE CATALOG

In-Between Handling is our business! Write for our new 24-page catalog.

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BIG JOE

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In Africa, important messages travel by tom-tom. In our business world anybody can "beat a drum," the important thing is . . . do people listen and reply?

At Reply-O-Letter, we know what it takes to get replies, *from 30 to 40% more* than you get from other direct mail. We can put on your desk hundreds of hard-hitting letters, drawing far more than their share of replies in every field (including your own).

You'll find no limit to your resourcefulness when you tap our 24 years of know-how in direct mail. Writers and artists are placed at your disposal without cost.

You keep costs down further with economies like our now famous one-time addressing operation: addressing of reply card, salutation, and reader signature *simultaneously*.

Write today for the Reply-O-Letter booklet on the *3 R's of Direct Mail*.

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SALES OFFICES: BOSTON • CHICAGO • CLEVELAND • DETROIT • TORONTO

FAILURES BY DIVISION OF INDUSTRY

(*Current liabilities in millions of dollars*)	Number 9 Months 1957	Number 9 Months 1956	Liabilities 9 Months 1957	Liabilities 9 Months 1956
MINING, MANUFACTURING	1776	1749	152.2	140.4
Mining—Coal, Oil, Misc.	46	32	7.6	7.2
Food and Kindred Products	143	151	10.0	8.9
Textile Products, Apparel	364	427	22.5	27.1
Lumber, Lumber Products	368	297	19.1	16.9
Paper, Printing, Publishing	103	95	7.7	6.6
Chemicals, Allied Products	48	46	4.4	11.6
Leather, Leather Products	50	66	6.1	3.8
Stone, Clay, Glass Products	44	29	1.9	4.5
Iron, Steel and Products	80	97	24.9	9.2
Machinery	182	206	18.3	22.8
Transportation Equipment	52	41	5.9	3.1
Miscellaneous	296	262	23.9	18.7
WHOLESALE TRADE	927	929	58.8	59.8
Food and Farm Products	216	218	14.0	9.7
Apparel	33	40	2.3	1.8
Dry Goods	22	37	0.8	1.1
Lumber, Bldg. Mats., Hdwre	105	121	6.2	16.4
Chemicals and Drugs	38	36	1.5	1.2
Motor Vehicles, Equipment	57	51	3.0	2.9
Miscellaneous	456	426	31.1	26.8
RETAIL TRADE	5278	4803	141.0	121.3
Food and Liquor	839	810	16.7	13.7
General Merchandise	221	216	9.1	8.2
Apparel and Accessories	893	914	18.9	23.7
Furniture, Furnishings	784	591	29.5	20.2
Lumber, Bldg. Mats., Hdwre	366	282	10.7	8.3
Automotive Group	643	541	15.5	17.6
Eating, Drinking Places	951*	867	22.0*	18.0
Drug Stores	118*	124	3.0*	2.7
Miscellaneous	463	458	15.6	9.0
CONSTRUCTION	1561	1298	83.2	70.4
General Bldg. Contractors	600	485	46.9	38.4
Building Subcontractors	870	743	28.7	29.0
Other Contractors	91	70	7.6	3.1
COMMERCIAL SERVICE	822	768	34.5	30.6
TOTAL UNITED STATES	10,364	9,547	469.6	422.5

*Revised.

Liabilities are rounded to the nearest million; they do not necessarily add to totals shown.

mounted 30 per cent above the previous September, while construction and wholesaling advanced a moderate 12 to 13 per cent. Almost three times as many concerns failed as last year in food manufacturing and printing and publishing. Service failures doubled in transportation and business services. Retailing showed the smallest rise from last year, because apparel failures held steady, and food, drug, and general merchandise totals declined.

Regionally, trends between August and September were mixed. Five regions reported dips, and four suffered slight increases. The Middle Atlantic States' total fell to the lowest level in a year.

In all regions except the West South Central and Mountain States, however, more businesses succumbed than in September 1956. Casualties in the East South Central and New England States climbed considerably.

While failures in the 25 largest cities fell to the lowest levels this year, casualties elsewhere in the country remained relatively high.

This report was prepared in the Business Economics Department, DUN & BRADSTREET, INC., by Rowena Wyant.

Choice of the Leaders

CUTLER-HAMMER
MOTOR CONTROL
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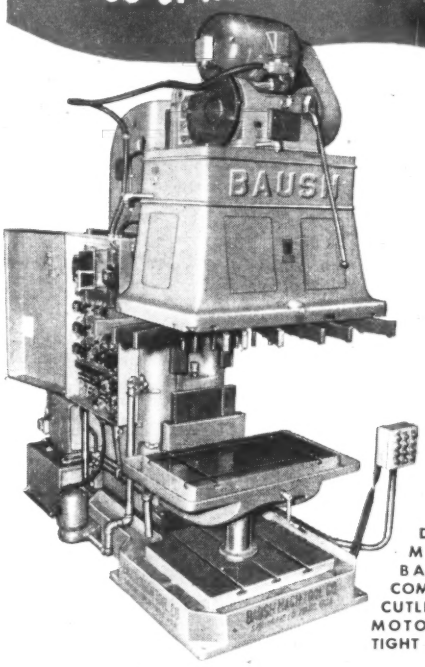
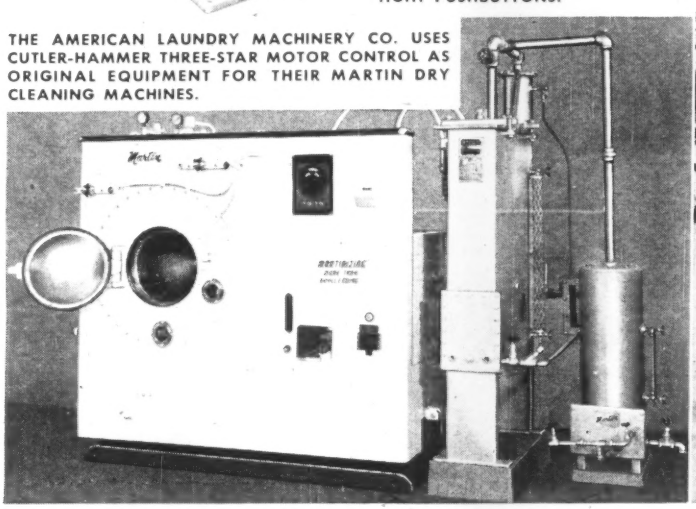
The Mark of Better Machines



THE SEYBOLD 100" FULL-HYDRAULIC MILL SPACER TRIMMER MANUFACTURED BY THE HARRIS-SEYBOLD COMPANY IS EQUIPPED WITH CUTLER-HAMMER THREE-STAR MOTOR CONTROL AS ORIGINAL CONTROL EQUIPMENT.

W6 VERTICAL SPINDLE DRILLING AND TAPPING MACHINE BUILT BY THE BAUSH MACHINE TOOL COMPANY IS EQUIPPED WITH CUTLER-HAMMER THREE-STAR MOTOR CONTROL AND OIL-TIGHT PUSHBUTTONS.

THE AMERICAN LAUNDRY MACHINERY CO. USES CUTLER-HAMMER THREE-STAR MOTOR CONTROL AS ORIGINAL EQUIPMENT FOR THEIR MARTIN DRY CLEANING MACHINES.



THIS REX SLUDGE COLLECTOR BUILT BY THE CHAIN BELT COMPANY IS SUPPLIED WITH CUTLER-HAMMER MOTOR CONTROL.

Look to the Stars for Satisfaction

Motor control equipment plays an important part in the performance and dependability of modern machines. None know this better than the machinery builders who have won positions of leadership. Only superior performance can create such reputations.

Experienced machine buyers know this is true and they look to motor control as a guide in making their selections. They know Cutler-Hammer Three-Star Motor Control does much more than provide assurance the electrical equipment is trustworthy. They know it reveals the standard to which machines are designed and built.

When you buy machinery, note how often Cutler-Hammer Three-Star Motor Control is not only offered but featured by leading machinery builders. Look to the Stars for satisfaction. CUTLER-HAMMER, Inc., 1436 St. Paul Avenue, Milwaukee 1, Wisconsin. *Associate:* Canadian Cutler-Hammer, Ltd., Toronto.

The 58 FORD with Round-the

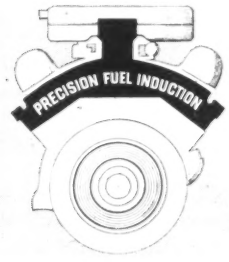
The whole wide world was its test track!

For 58 Ford offers you the world's newest fleet cars – *already proved* under the most demanding conditions imaginable. The whole wide world, from London to Saigon, from the Alps to the Rockies, served as Ford's test track. When this unprecedented test trip was completed, the 58 Ford had demonstrated beyond doubt that it had the stamina and dependability to meet any fleet demand.

Equally important as stamina and dependability are the savings the 58 Ford can offer in year-round fleet operation. With Ford's new Interceptor V-8 engine, plus new Cruise-O-Matic Drive, you can get up to 15% better gas mileage. And this year the famed Ford Mileage Maker Six will deliver up to 10% greater economy.

And there's so much more that makes the new 58 Ford your best bet for fleet service . . . improved suspension for better ride and roadability . . . new Safety-Twin headlights for greater safety . . . the newest styling on the road for greater prestige and increased resale value.

Get the complete story . . . including low, low cost . . . from your nearest Ford Dealer. See him today!



PRECISION FUEL INDUCTION—A NEW CONCEPT IN ENGINE DESIGN

Ford's 58 Interceptor V-8 engines feature Precision Fuel Induction—combining new "expressway" manifolds, larger ports, higher-lift valves, and machined combustion chambers. Result—amazingly increased power, thriftier performance from your Ford.

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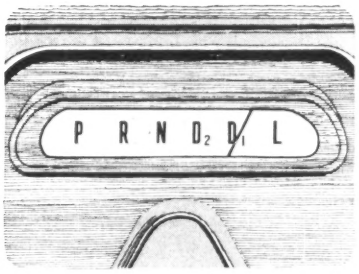
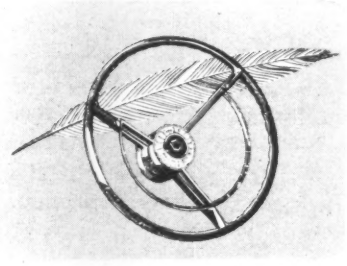
World Stamina and Year Round Economy



CRUISE-O-MATIC DRIVE FOR FINEST PERFORMANCE, EXTRA ECONOMY

The newest, most advanced, and most versatile of all automatic drives. Its unique design permits use of a special rear axle ratio to provide "built-in" overdrive economy. In teamwork with the new Interceptor V-8 engine, this new drive delivers up to 15% greater fuel economy.



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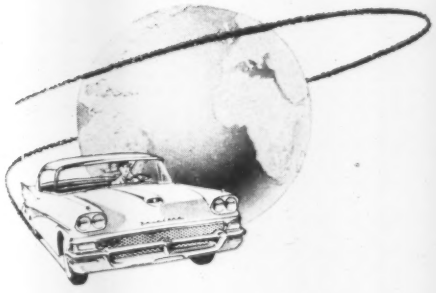
Recirculating steel balls roll smoothly to provide up to 12% less steering effort. Your drivers will really appreciate Ford's easy parking, and smooth handling in traffic. And new Magic-Circle Steering is yours as standard equipment on every 58 Ford.



THE 58 FORD PROVED AND APPROVED AROUND THE WORLD

New facts on inventory costs revealed by IRON AGE survey

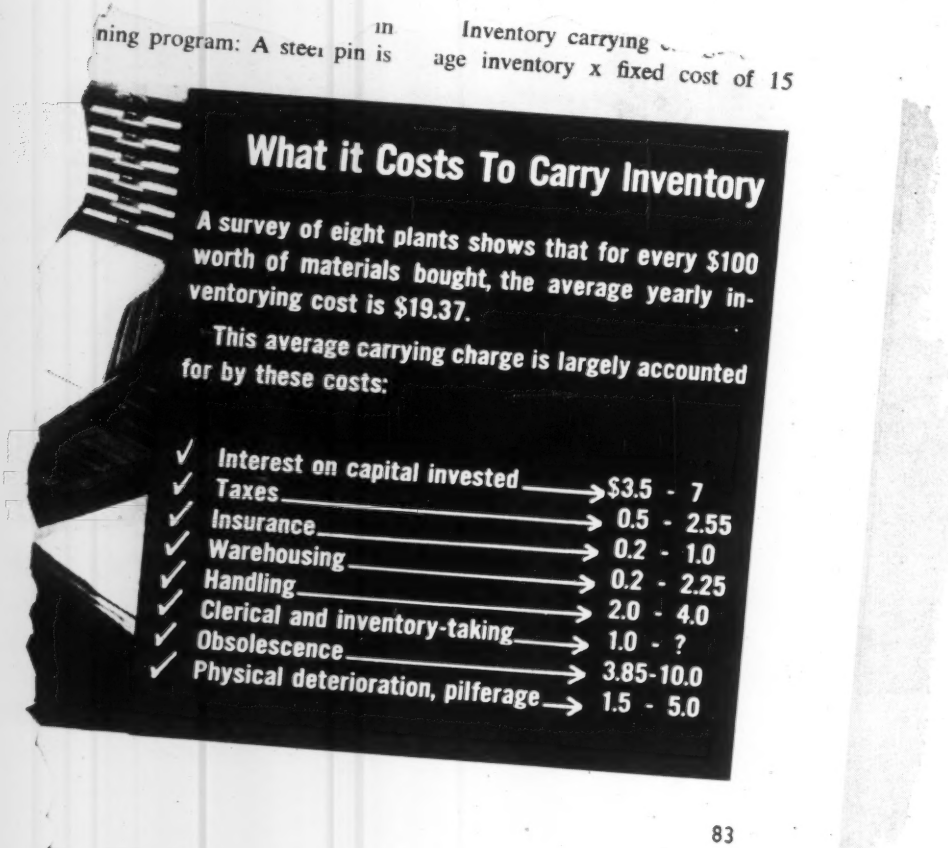

ning program: A steel pin is
in
Inventory carrying
age inventory x fixed cost of 15
What it Costs To Carry Inventory
A survey of eight plants shows that for every $100 worth of materials bought, the average yearly inventorying cost is $19.37.
This average carrying charge is largely accounted for by these costs:
Interest on capital invested → $3.5 - 7
Taxes → 0.5 - 2.55
Insurance → 0.2 - 1.0
Warehousing → 0.2 - 2.25
Handling → 2.0 - 4.0
Clerical and inventory-taking → 1.0 - ?
Obsolescence → 3.85-10.0
Physical deterioration, pilferage → 1.5 - 5.0
83

Chart courtesy The Iron Age.

Here's help on steel inventory costs . . .
In these days when working capital is tight and interest rates are high, it's especially important not to let inventory take dollars you can use elsewhere. You can save money on steel inventory costs by letting Ryerson carry the inventory for you. It's already here, at Ryerson—in the nation's largest stocks of steel. And Ryerson has the organization to deliver what you want when you want it. For immediate steel service, call the Ryerson plant near you.

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THE TREND OF BUSINESS

BUSINESS FORECASTING has run afoul of the weather. The most interesting single speculation at the moment is whether or not consumer buying will recapture the momentum it lost during the September heat wave.

There have been signs of an upturn in consumer purchases lately. In fact, that is about all there has been to get excited about. In the face of the present limpness in capital outlays (which in 1956 were vigorous) and of the decline that now looms in the rate of defense spending, a lift elsewhere has been needed. Rising prices and the growth in consumer services are not enough to keep a rolling adjustment alive.

For a half-year or so prior to last April, retail sales were adequate but dull. Then April launched a slow rise that was sustained through mid-Summer. In July and August, volume jumped about 7 per cent above the good level of July 1956. The rise since March has been $700 million, which, converted to annual rate and extended for a full year, would be quite steep.

But September produced a letdown. Although September auto sales surpassed those of September 1956, they did not improve enough to provide the help expected from them. In consequence, retail trade could not quite measure up to the July-August precedent. Warm weather was surely responsible in part, but even into November doubt has persisted whether the energetic buying mood of late Summer could be revived.

Even personal income faltered in September, a rare event in recent years, but the change was so slight as to be chargeable to the technicalities of a seasonal adjustment.

Wholesale prices down

The latest upward push in wholesale prices, which opened last June, was turned back in September. The "all-commodity" index had risen from 117.1 (1947-1949=100) in May to 118.3 in August. The latter figure held during the week of September 3, but the subsequent decline carried the index down to 117.5 by early October. The monthly index for September was 118.0.

Services industries have frequently been charged with major responsibility for recent increases in the consumer price index. However, according to Louis Paradiso, in the October issue of the *Survey of Current Business*, over an eighteen-month period running from February 1956 to August 1957 the rate of increase was about the same for commodities as for services.

Autos—fair enough

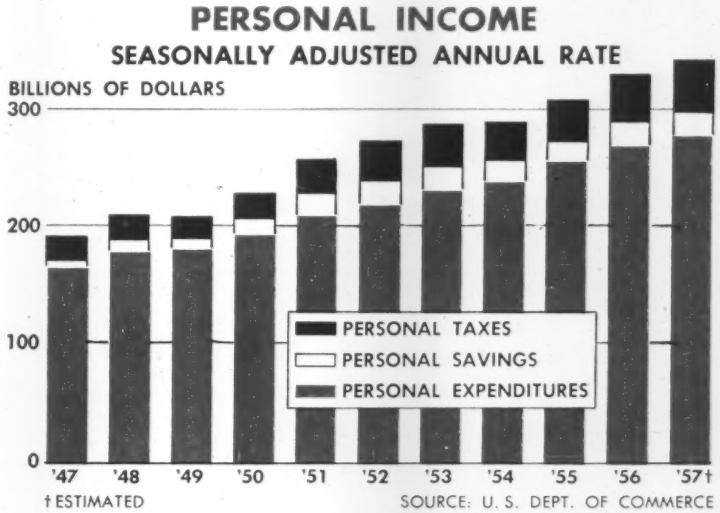
It's clean-up time for automobile dealers. Production and sales obviously fell short of the great expectations of a year ago, but it is not realistic to call the year a poor one. Production through September came to 4,673,522 cars, as against 4,234,711 for the same period last year.

Sentiment about automobiles is still chilled by the 1955 record. We can't have big years even for bad reasons—in that case borrowing from future markets through a rate of credit expansion that couldn't be sustained—without suffering mentally until they are surpassed. Actually aggregate domestic sales of the past three years averaged out at around 6.6 million cars per year, which now sounds very pleasant. The verdict ought to be: not bad.

Speculation about 1958 prospects is, of course, well under way. Some automobile economists are thinking in the 6.2-6.3 million range.

Construction: a new record

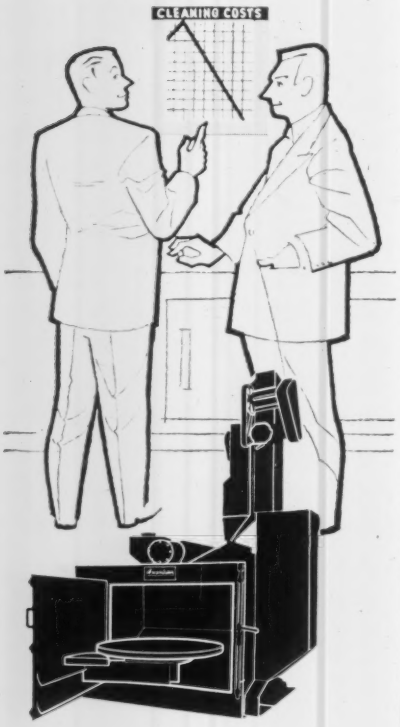
With an outlay of $4,618 million, the construction industry managed to punch out a new record in Septem-



The record rate of consumer spending that has prevailed so far in 1957 is attributed primarily to the steady rise in personal income. Annual rate of income, after taxes, for 1957 is expected to be 3 per cent above 1956 and 75 per cent higher than 1947.

"Look-

HOW THIS ONE MACHINE CUT COSTS IN SO MANY PLACES"



"Remember when we approved purchase of a Wheelabrator for our cleaning room? Well, our cost records show the machine has paid for itself out of savings in less than a year. Besides this, it's paid off in better cleaning, saved time in machining, lengthened tool life, improved the appearance of our products and made our customers a lot happier. These things don't show up in this chart, but they help our profit picture, too."

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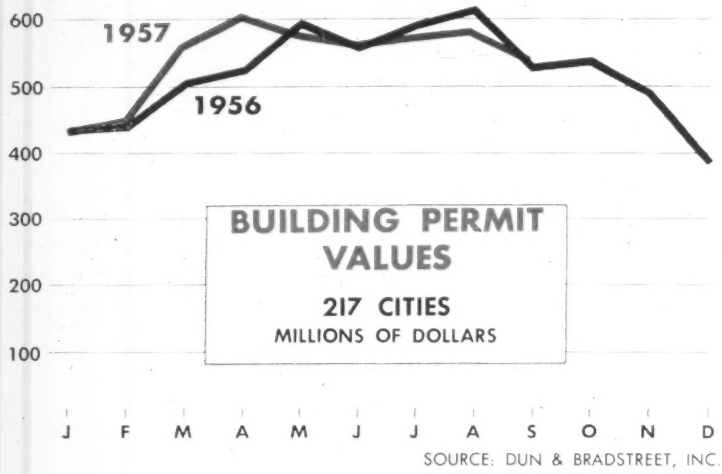

At about $4.7 billion, the aggregate of building permit values for 217 cities in the first nine months of 1957 was fractionally below the comparable 1956 level, but was nearly 2 per cent over 1955. Volume in 1956 was the highest on record for the same period.

ber. In fact, pluses were registered by both the usual comparisons—with the same month a year ago (with and without allowance for cost increases) and with the previous month of this year on a seasonally adjusted basis. The total for the first nine months of this year also compared favorably with the nine-month total for 1956.

But recent awards and permit data suggest that the industry may have difficulty in extending its string of new records. Contract awards in August, reported by F. W. Dodge Corporation, at $2,818 million, were down 5 per cent from the same month a year ago.

It is true that awards ($22,677 million) during the first eight months of 1957 were 2 per cent larger than over the same months in 1956. But the six-month total as of last June 30 was 5 per cent greater than in the first half of the preceding year. So the early gain is shrinking—and *before* adjustment for price increases in the interim. By mid-1958 construction and equipment outlays jointly may be heading downward.

Machinery demand rises

New orders received by machinery manufacturers continue to hold up. At $4.2 billion ($1.9 billion for electrical, $2.3 billion for non-electrical, seasonally adjusted), they rose slightly above both June and July levels. Even orders for transportation equipment, which have been suffering from weakness in the aircraft industry particularly, managed a gain over both of the two preceding months. Orders for fabricated metal, however—use of which is widely diffused—fell from $1.48 billion in July to $1.3 billion in August.

Employment, unemployment

As in the case of industrial production there was a feeling of suspense in late Summer over how much of a lift the Fall pick-up would give to employment. Unemployment declined seasonally by about the right amount in August—400 million—and remained from low to moderate at 4.2 per cent of the seasonally smaller labor force—or 3.9 per cent in terms of the old scale. In September employment fell slightly to 65,647,000, and unemployment slipped to 2.6 million or 3.7 per cent of the labor force (3.4 per cent on the old scale).

Sales, inventories, orders

Sales, inventories, and new orders at the manufacturing level in August gave neither optimists nor pessimists much new grist. After seasonal adjustment, sales, at a value of $28.6 billion, were topped by $1.4 billion in the year's best month (January) and stood half a billion above the poorest month (June). Still, after allowance for a difference in the number of working days, shipments were 4 per cent higher than in August 1956 for durable and soft goods.

The most disappointing figure for

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- **Speed**—*capacity up to 6,000 an hour. Available in 1-to-4 station models.*
- **Accuracy**—*automatic detection of errors before envelopes are filled.*
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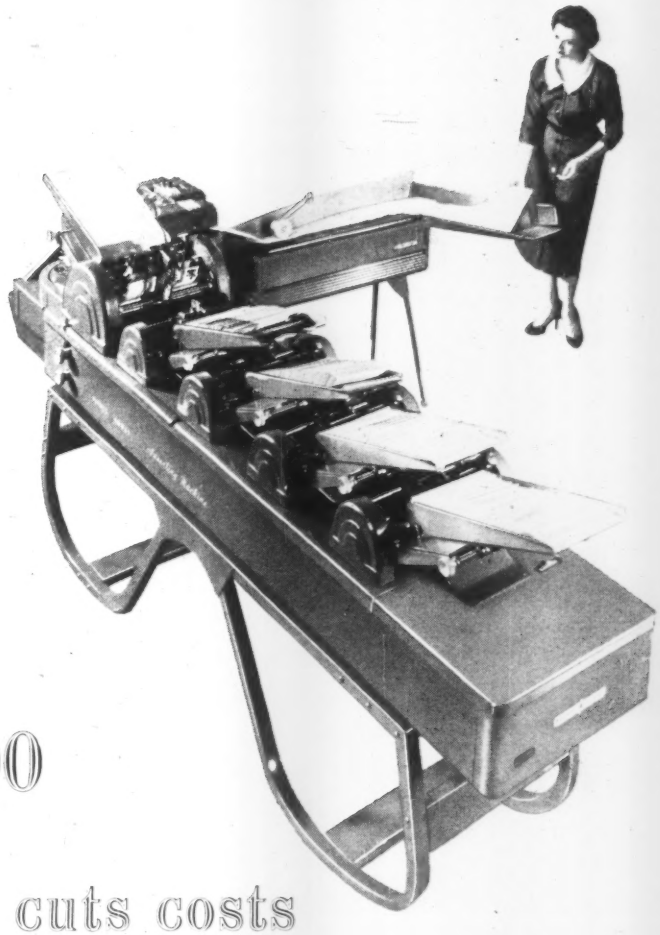

Stuffs up to 6000 envelopes an hour . . . speeds mailing, cuts costs

The new Pitney-Bowes "3100" Mail Inserting Machine is big news to mailers . . . does away with diverting office people from more productive jobs for inserting, or running up expensive overtime.

The "3100" gathers, nests, and stuffs in envelopes as many as four enclosures of various kinds . . . closes, seals, counts, and stacks envelopes at speeds up to 6,000 an hour. An optional postage meter machine hookup provides preferred metered mail postage, either first or third class—or alternative postage.

It equals the production of eight trained workers. Some users report time savings up to $7.00 per thousand pieces. Even with only occasional use, the PB "3100" can show you appreciable savings. It speeds mailing, and permits better scheduled mailings, allows more mailing to promote your product or service.

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"... then we learned from Pangborn how dust control in our plant could save us money!"

Pangborn Dust Control can cut your costs—lower housekeeping expense, increase machinery life, improve working conditions, salvage valuable material and offer many other benefits. If dust has you walking a tightrope, write for Bulletin 922 to: PANGBORN CORP., Hagerstown 4, Maryland. *Manufacturers of Dust Control and Blast Cleaning Equipment.*

Pangborn CONTROLS DUST

August is the ratio of new orders to shipments. Here, there was no break in the chain of deficits that started last Winter. The backlog of new orders was reduced by another $1.5 billion (apart from any cancellations).

Total manufacturing and trade inventories rose from $91 billion in July to $91.2 billion in August, at book values on a seasonally adjusted basis. For the second time this year no increase was recorded in manufacturing stocks. For wholesalers the increase was a first. There have been several small increases in retail stocks—there was one in August—although the inventory-sales ratio remains low. Higher costs of replacement accounted for a large proportion of the $4.5 billion over-all dollar increase over year ago levels.

Housing and money

The chances of holding gains in the number of housing starts and financing higher cost of construction is regarded as dependent upon the availability of money. Here, again, the continuity of "rolling adjustment" requires an offset to prospective declines—in both the dollar rate of growth in non-residential construction and in actual physical volume. If money is to be the key, the odds at present seem to be that the new push in housing can hold.

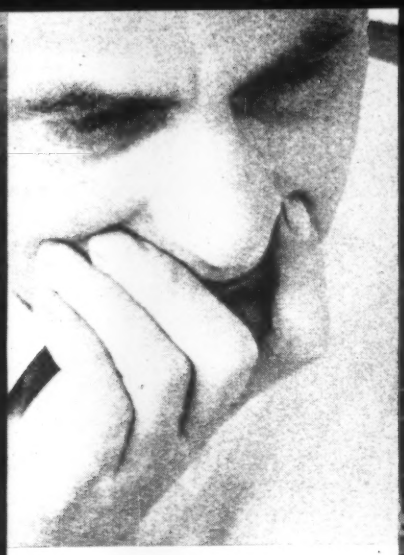
This does not mean that the scramble for funds is over. No one seems

BUSINESS SIGNPOSTS

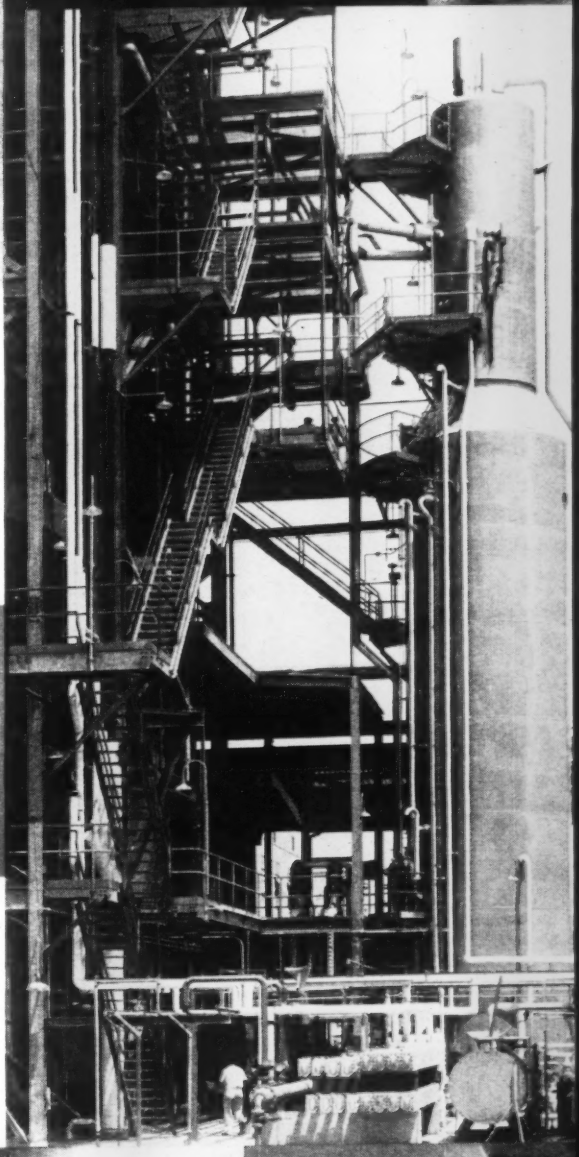
1939 Average	1947 Average	Selected WEEKLY Indicators†	Latest Week	Previous Week	Year Ago
102	163	**STEEL INGOT PRODUCTION** Ten Thousand Tons (a)	205	207	249
25	49	**ELECTRIC POWER OUTPUT** Ten Million KW Hours (b)	117	117	113
76	121	**BITUMINOUS COAL MINED** Hundred Thousand Tons (c)	99	99	102
69	92	**AUTOMOBILE PRODUCTION** Thousand Cars and Trucks (d)	90	58	110
35	98	**DEPARTMENT STORE SALES** Index 1947–1949 = 100 (e)	132	127	134
5	13	**BANK CLEARINGS** Hundred Million Dollars (f)	119	109	113
284	67	**BUSINESS FAILURES** Number of Failures (f)	258	244	254

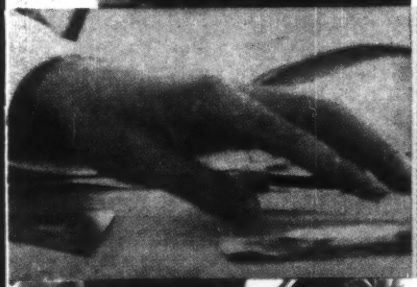
1939 Average	1947 Average	Selected MONTHLY Indicators‡	Latest Month	Previous Month	Year Ago
58	100	**INDUSTRIAL PRODUCTION** Index 1947–1949 = 100 (e)	144	145	144
58	95	**NONFARM COMMODITY PRICES** Index 1947–1949 = 100 (g)	125.9	126.0	123.1
37	100	**FARM COMMODITY PRICES** Index 1947–1949 = 100 (g)	91.1	93.0	90.1
59.4	95.5	**CONSUMERS' PRICE INDEX** Index 1947–1949 = 100 (g)	117.1	121.0	121.1
3.5	10.0	**RETAIL SALES** Billions of Dollars (h)	16.2	17.5	15.6
5.4	15.6	**MANUFACTURERS' SALES** Billions of Dollars (h)	29.0	27.2	28.5
45.8	58.0	**EMPLOYMENT** Millions of Persons (h)	65.7	66.4	66.1
72.9	190.5	**PERSONAL INCOME** Billions of Dollars, seasonally adjusted annual rate (h)	346.5	346.8	331.1
103	257	**BUILDING PERMIT VALUES** Millions of Dollars (f)	525.7	563.5	526.2

SOURCES: (a) Amer. Iron & Steel Inst.; (b) Edison Elect. Inst.; (c) U.S. Bureau of Mines; (d) *Automotive News;* (e) Federal Reserve Board; (f) DUN & BRADSTREET, INC.; (g) U.S. Bureau of Labor Statistics; (h) U.S. Department of Commerce. †WEEKLY INDICATORS: Coal and steel data for the second week of October; all others for third week. ‡MONTHLY INDICATORS: Manufacturers' sales for August, all others for September.



WHEN you consider expansion . . .
. . . the most important
investment you can make is in
the creative ability of men.





FLUOR

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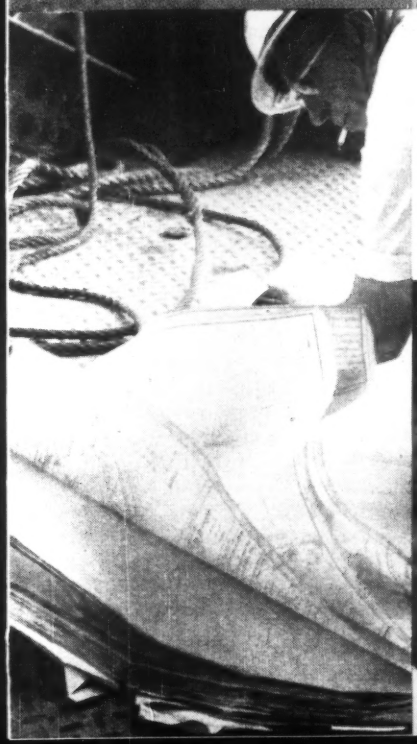

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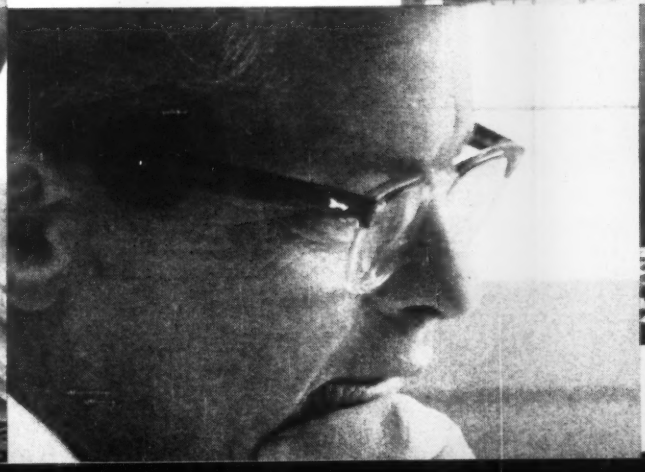
Completed 40 days ahead of schedule this new 60,000 KW steam electric unit at San Bernardino is producing profits for California Electric Power Company.



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COMMERCIAL CREDIT COMPANY subsidiaries, during each of the last several years, advanced over one billion dollars to manufacturers and wholesalers to supplement cash working capital. The 1956 total volume of finance subsidiaries amounted to over three billion dollars.

to expect an abrupt fall-off in the overall demand. So many activities have been competing for an inadequate supply of savings that some loss of intensity in this struggle would still be consistent with full use of the available supply.

Business investment in plant and equipment so far threatens to level and taper rather than buckle, and it is generally agreed that the needs of states and municipalities will continue to rise. The upward trend of weighted prices, slowed but still perceptible, will mean slightly higher carrying charges for inventories and receivables and to that extent help to check weakening in the demand for bank funds.

Bereft of elbow room in the form of a good cash surplus, the Treasury will remain a familiar semi-mendicant in the money markets, and its position will not be strengthened by any British drawings on credits with the Export-Import Bank and the International Monetary Fund. Perhaps later on the EI Bank and the Commodity Credit Corporation will be borrowing on their credit outside the Federal debt limit. The Federal National Mortgage Association has already done so. Except for the recent issue of 1969 bonds it has been some time since the Treasury has sold marketable securities carrying a maturity of five years or more, and the volume of outstandings due within one year or redeemable at holder's option ranges between $82 billion (counting redemptions at a likely rate) and $132 billion (counting redemptions at full potential).

These comments emphasize that a weakening of the boom does not reverse all trends. Roughly as much money will be needed for some months to finance new business investment as heretofore. A perhaps understressed feature is that two types of expansion likely to remain strong—public utilities and communications—depend mainly on outside funds.

But the incessant shifting process itself, as among source of and need for funds, may favor housing. Overall investment requirements do not seem likely to rise further, and should decline. Meanwhile, absolute supply of savings keeps rising.

The pattern of demand for funds may thus shift but moderately, but the net direction should be in favor of housing. It may remain a mystery

to many why the effective demand for housing in the face of almost spectacularly rising costs is relatively so firm. Money will be available although competition for it will remain vigorous. The new 5.25 per cent ceiling on FHA insured homes is still merely so-so competitively, and one of the unsung effects of smaller down payments in tight money markets is that more mortgage money is required per home. Still, some stimulus is to be expected. The continued low vacancy ratio of 2.3 per cent and longer-term factors cited in the September issue of DR&MI suggest that needs are still substantial. Therefore, the way seems to remain open for housing on the upside.

Government outlays

As a result of Congressional and Administration battering, however unsynchronized, the closing months of the year may witness the novelty of a declining trend in Federal outlays for goods and services. The dip will be slight, but it will deepen next year—unless the sputnik forces a backtrack on economy.

The fate of the over-all Federal administrative budget is another story. Total expenditures are still likely to rise. These include outlays for other than "goods and services"—loans, grants-in-aid, and so on.

Last Spring and Summer the big budget commotion raised hopes of a substantial reduction in Federal expenditures and a happy sequel in tax cuts. But sophisticates doubted whether the enormous inertia of the budget-making process could be overcome so quickly—requiring as it does a blending of forward commitments, political fixtures, annual estimates for permanent programs, and a mass of current services.

The annual mid-year budget review supported the pessimists. Expenditures in fiscal 1958 are now expected to reach $72 billion ($200 million above the January estimate and $600 million above fiscal 1957 outlays), and revenues to approximate $73.5 billion ($100 million below orginal estimates and $2.5 billion above fiscal 1957).

This is a report prepared in the Business Economics Department, Dun & Bradstreet, Inc., by Edwin B. George and John W. Riday.

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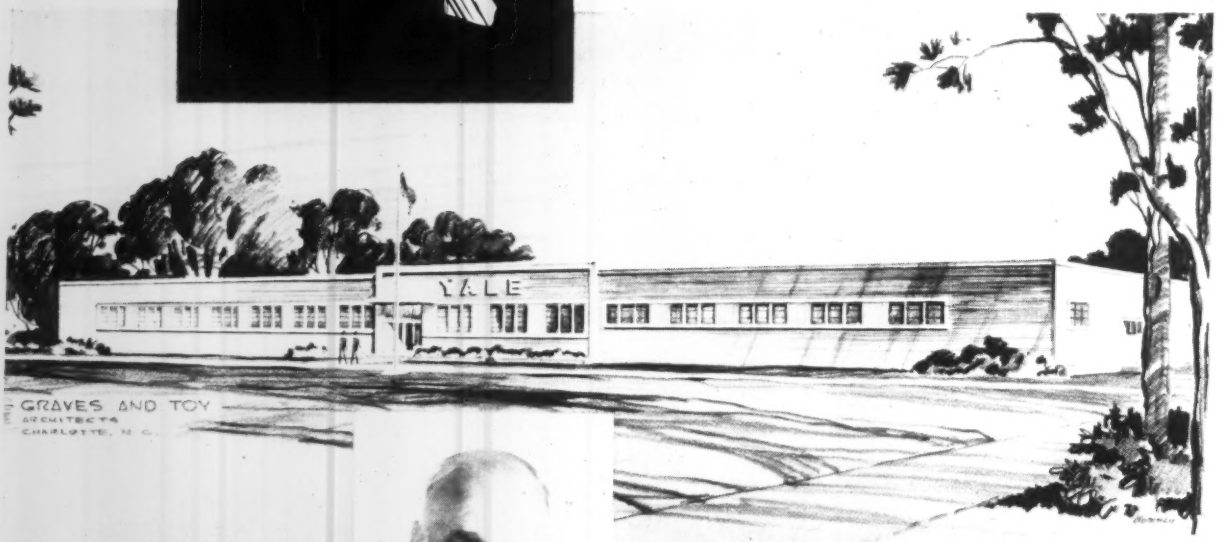
A year after choosing a North Carolina site, Yale & Towne officials are high in its praise: "In North Carolina, we found the kind of place and the kind of people that make for success," says Yale & Towne Vice President Leo J. Pantas, General Manager of the Yale Lock and Hardware Division, which now has a new plant at Monroe, N. C. "We know people help industry to succeed. Monroe folks gave us a warm welcome. They think straight, talk straight. To them a job is an opportunity."

Monroe is just one of scores of North Carolina towns where industry thrives among green fields and friendly people. North Carolina development engineers will help custom-plan your expansion site. Write or wire Wm. P. Saunders, Director, Dept. of Conservation and Development, Raleigh 4, North Carolina.



Business Man Governor Luther H. Hodges whose dynamic leadership has brought about tax reductions put into effect July 1, 1957.

NORTH CAROLINA
Year Round Mid-South

"LEAST LIKELY TO SUCCEED"

Profile of The Typical Business Failure

IN THE SPAN of a century, 1857 to 1957, DUN & BRADSTREET has analyzed more than 1 million business failures. This seems a gloomy aggregate, but fortunately the rise in failures has not kept pace with the climb in the total number of business concerns. Casualties are currently 2.6 times higher than when the record started, but total listed businesses are ten times as numerous.

From the myriad figures accumulated between the panic of 1857 and the record prosperity of 1957, DUN & BRADSTREET has put together a composite picture of the typical business casualty. Granted that individual failures vary almost as much as people do, certain basic characteristics predominate:

Operation: Over the years, retailers have made up 50 per cent or more of the total casualties, although there may be exceptional years—for example, 1946–1947, when manufacturing failures outnumbered those in retailing.

Line: Food stores and eating and drinking places together account for at least one-third of the retail toll. Casualties in this trade outweigh all others, although sharper year-to-year increases currently prevail in the apparel, general merchandise, and automotive trades. Apparel stores head the list in terms of failure rates per 10,000 operating concerns.

Size: The average casualty is small in terms of liability size. In 1957, 64 per cent of all failures have liabilities under $25,000, and 91 per cent are below the $100,000 mark. The typical failure will have liabilities in the $5,000 to $25,000 range—the average liability of the food stores that have failed so far in 1957 was $20,000. Of course, liabilities bulk larger for manufacturers and wholesalers and some retail lines. The average liability for all industries and trades so far in 1957 was $45,000—a mild increase from the previous year, but still far short of the $59,000 per failure in the earlier post-war years of 1946–1947.

Age: The typical failure is in its second or third year of operation. Almost three-fifths of the casualties are less than five years old—and the largest number are at the two-year level. Although failures of concerns over ten years old have risen gradually to 20 per cent of the total in 1957 from 9 per cent in 1947, young businesses still predominate.

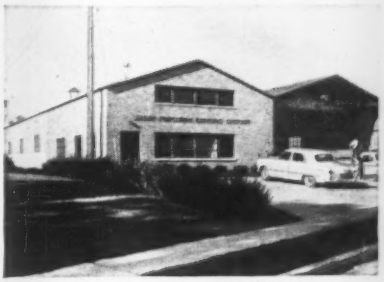
Location: The average business casualty is likely to be located in a non-metropolitan area in the Middle Atlantic or Pacific States. These two regions accounted for 54 per cent of the casualties so far in 1957. The "typical failure" would probably have occurred in either New York or California. Not only are actual numbers of casualties high in those states; rates per 10,000 are most severe.

Type of Failure Action: A voluntary petition in bankruptcy was filed by about one-half the businesses that failed.

Cause: Lack of managerial experience and aptitude underlie some 90 per cent of the failures analyzed. While the ways in which inexperience and incompetence were manifested cannot be narrowed into a single category, it is a matter of record that small enterprises are plagued most by inadequate sales and competitive weakness, whereas receivables and inventory problems play a large role in the failure of big concerns.

—ROWENA WYANT

Can you plan that new plant



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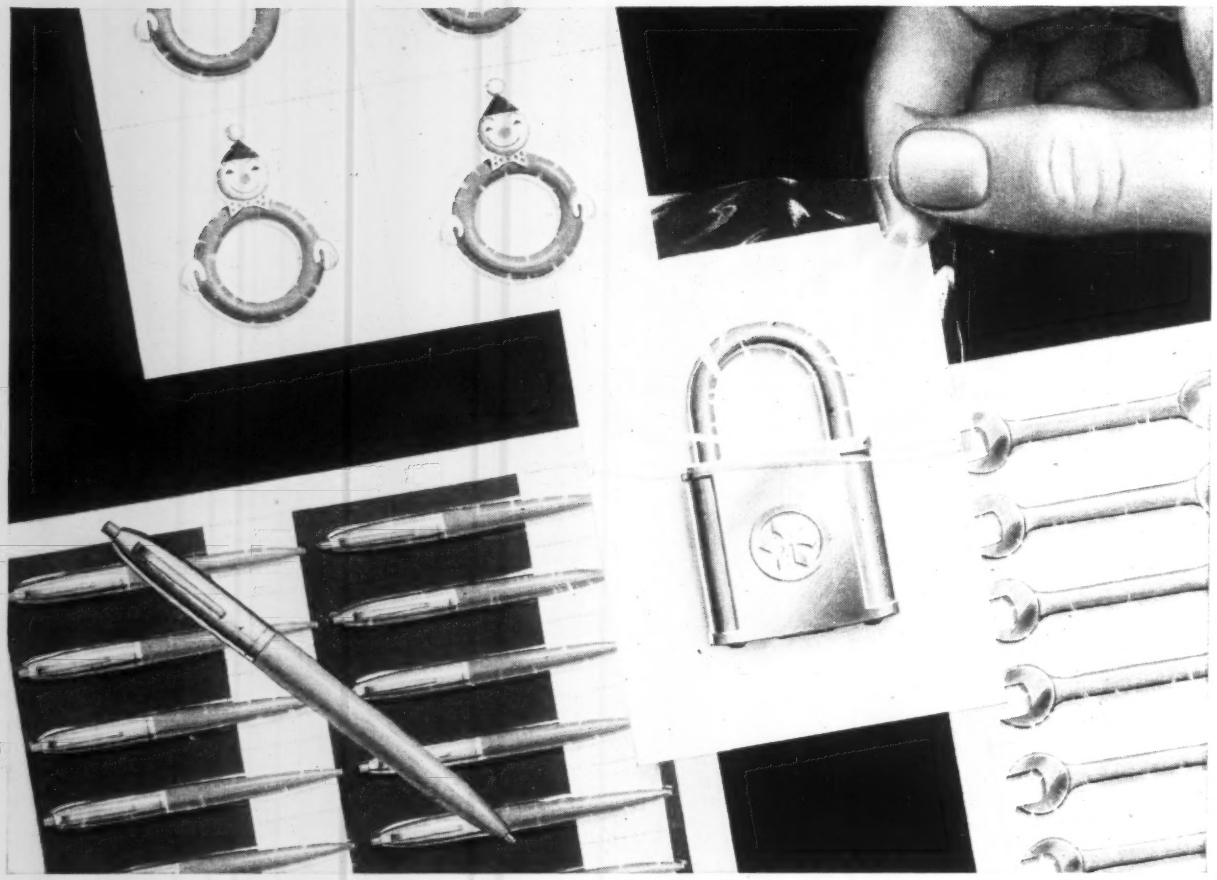

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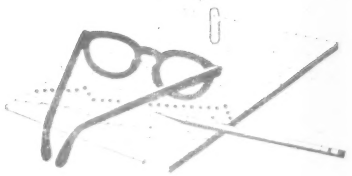
Business decision-making has its theories by the dozen, but how do the deciders actually do it? In DR&MI's latest **Presidents' Panel** *report, top industrial leaders examine their own methods and techniques of decision-making. Here are the factors that weigh in the balance . . . .*

WHEN PRESIDENTS DECIDE



REPORT NO. 3
THE PRESIDENTS' PANEL

KENNETH HENRY, *Executive Methods Editor*

HUCKLEBERRY FINN knew well the anxiety of decision. "I was a-trembling," Mark Twain has him say, "because I'd got to decide forever betwixt two things, and I knowed it. I studied for a minute, sort of holding my breath, and then says to myself, 'All right, then, I'll *go* to hell!' "

Probably no business executive decides anything so blindly and impulsively as this, and seldom are the alternatives so few or so drastic. But the intensity of the emotion and the range of the risk in a major decision may often make him feel very much as Huck did. Every decision is predictive to some extent. And the decider is poised between the present and the future.

Because of increasing business expansion, accelerated technology, and narrowing profit margins, today's decisions cost more to make and take longer to pay off. Back in 1900, as Peter Drucker has pointed out, few business decisions looked more than a few years ahead, while business decisions with a futurity of ten years or more are commonplace today. "Technological progress," says Drucker, "has succeeded in converting the business man from the short-range trader of classical economics to the long-range planner of today who has to take a twenty-years' view."

Decisions That Try Men's Souls

For an inside look at today's decision-making by top industrial management, DR&MI asked the 111 company presidents on the Panel what kind of decisions they make and how they make them. These men head companies with 1.7 million employees, $27 billion in total assets (including 1,773 U.S. plants), and annual net sales in excess of $32 billion. Decisions in such companies cannot be made lightly. They have an immediate impact on men and jobs, and they may span a long future.

The ultimate deciding factor in the successful outcome of any major decision is probably the human factor. Although the president, more often than not, acts alone at the moment of decision, what he decides must be delegated to others to carry out. The decision itself is made on information and recommendations provided by human subordinates. Even if it is a technical one involving operations, or product and marketing research, the quality of the data on which it is based depends on the men who select, collect, and analyze these facts.

In DR&MI's current decision-making survey, two out of every three company presidents say that the hardest decisions they have to make are those involving people. And more than a fourth of this group mention

the specific personnel problems of executive selection, promotion, demotion, and discharge as the most difficult of all.

"To retire or fire old-time employees" is the most difficult kind of decision one company president faces. "It is no fun," writes another chief executive, "to remove people who are close personal friends of long standing, particularly if they do not see their shortcomings." Another man dreads "decisions adversely affecting the careers of men who fail." But even in the less drastic personnel decisions, company presidents find it difficult to make "decisions regarding personnel that might cause inconvenience and disappointment" or "hurting personal feelings of persons ruled against." A number of men say their biggest decision headache is the "selection of key people."

Other men name these types of decisions as the hardest to make: "expansion in new fields," "advertising expenditures," "priority of plant investment items," or simply "spending money." "Decisions based on complicated tax laws" are mentioned by one man, and several have trouble with budget decisions. Another president, who speaks for several, says his toughest decisions are "complex technical ones involving considerable study on my part and dependence on technical specialists."

Extreme decisions that involve radical change bother many company presidents. Several find their decisions complicated by the problem of "how best to apportion my time and energy to the various phases of the job," and several identify the most difficult decisions as those "where facts are obscure or confused."

The hardest decisions, it appears, are not always the most crucial. Close to half the men rank major corporate policy decisions as their most important function, compared to four out of ten who name the selection of officers and key executives. Decisions related to organizational structure are ranked next in importance, followed by diversification and plant expansion, and major capital expenditures. Right now, though, more presidents are preoccupied with capital expenditure decisions than anything else. Executive selection is a problem of almost equal current concern, and diversification and plant expansion follow. Tied in fourth place among the most pressing current decision problems are those dealing with organizational structure and corporate policy.

Not all the decision areas that presidents consider most important fall into simple, general categories. Specific mentions spill over into these areas: government relations, public and labor relations, development of future product lines, long-range planning, foreign sales, operations control, "high level selling," and "decisions relating to the creation of a sympathetic understanding and appreciation of corporate objectives and policy through good communications and effective leadership."

Companies on the Panel are predominantly large—72 of the 111 companies are among the 400 biggest U.S. companies as measured in net sales. Many of these larger companies, with diversified lines, have become increasingly decentralized in the past few years. This, of course, generally means increased delegation by the president—and in many cases the types of decision that are reserved to the chief executive have been rather carefully defined.

To find out just what the distinguishing factors are between the decisions the president must make him-

MAJOR PRESIDENTIAL DECISION AREAS

Presidents on the Panel were invited to rank by number the types of major decisions they consider most important in their function as chief executive. Some presidents regarded all decision areas as interrelated and of equal importance. Not all presidents assigned a numerical rank to the decision area, nor did all men rank every area. Of those who did, here is the ranking, by number of men.

Decision Area	Order of Importance					
	First	Second	Third	Fourth	Fifth	Sixth
Corporate policy	33	13	19	3	4	0
Selection of key executives	29	28	10	3	3	1
Organizational structure	7	21	24	7	9	3
Diversification and plant expansion	6	12	10	26	14	5
Major capital expenditures	2	6	11	20	27	2

AMONG THE PANEL MEMBERS ARE PRESIDENTS PICTURED HERE. A COMPLETE LIST APPEARS ON PAGE 52.

HENRY H. RAND
International Shoe Co.

BRUCE M. JEFFRIS
The Parker Pen Co.

JOEL HUNTER
Crucible Steel Company of America

C. W. BRYAN, JR.
Pullman-Standard Car Manufacturing Co.

HOWARD I. YOUNG
American Zinc, Lead & Smelting Co.

MUNDY I. PEALE
Republic Aviation Corporation

self and those he generally delegates, DR&MI asked the panelists: "Does your company have any set limits, financial or other, above which the president must be involved in a decision—for example, expenditures exceeding a certain dollar level that must be approved by the president?"

Almost three-fourths of the company presidents answered *yes* to this question. Among the others is one president who says: "While we do not have set dollar limits, it is understood by department heads that my participation should involve only major matters. Sometimes relatively small dollar values involve important policies and principles."

Other companies, without specific limits to what the president does and does not decide, delegate their expenditure decisions to a regular committee. As one man describes it: "Capital spending budgets are approved annually by our Executive Committee, not by any one individual." Decision limits in these companies are made in advance, under a long-range budget policy. At this planning stage, the president is involved, and he must participate again when the budget is exceeded or the policy calls for review.

Informal Screening

The procedure in companies that do not formally screen presidential decision-making is summed up by one chief executive who says: "Our general approach is for the President to approve a detailed plan, budget, or target; thereafter, only important deviations from the original plan, as approved by him, are submitted to the President. For capital expenditures, as an example, the budget is approved by the President prior to submission to the Board of Directors. Allotments of the approved budget are made from time to time by the President. Commitments for acquisition of items included in the allotment are not approved by the President unless they deviate in important respects from the description or cost originally estimated. In no instance is the President asked to approve any change or item of less than $5,000."

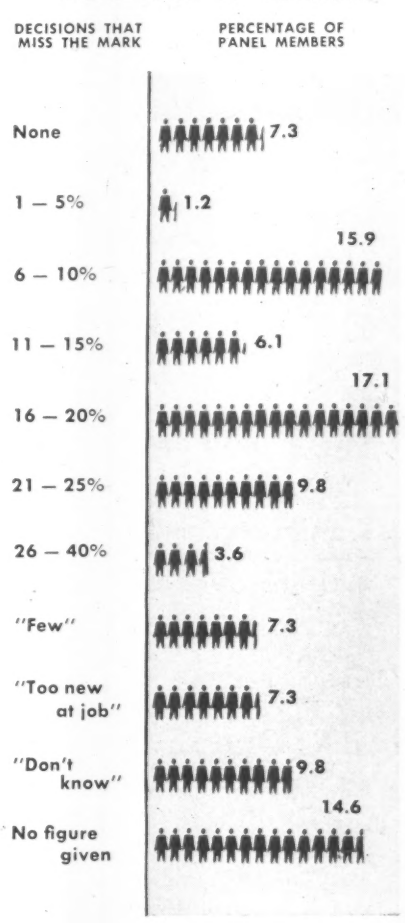
Various Dollar Limits

In three-fourths of the companies with formally prescribed decision levels, company presidents report a variety of limits above which they must share in or make the decision. Limits on capital expenditures decisions, for example, range all the way from $100 in one company to $100,000 in four, among the substantial group reporting dollar limits. The most common level of capital expenditures above which the president must decide is $25,000, mentioned by more than a fourth of the responding group. Another fifth puts the limit at $50,000.

Only a few company presidents mention the dollar levels at which they must approve salary changes. Of this group, more than half mention a salary break of $15,000, a few name $10,000, and some others, $25,000.

Decision levels—by dollars, in many cases—are established by other companies for donations, advertising, major sales contracts, patents, purchases, credit extension, inventory write-offs, maintenance, experimental and research work, new product development, new acquisitions, and major labor policy changes.

SCOREBOARD ON DECISIONS



Decisions That Matter

"Decisions that really matter," Peter Drucker has written, "are strategic. They involve either finding out what the situation is, or changing it, either finding out what the resources are or what they should be. These are the specifically managerial decisions."

Panelists were asked to name the most important decision, at this level, they have made since becoming president. Most of these decisions were made during the postwar period, since eight out of ten of the presidents have headed their companies for ten years or less—and the average term in office for the group as a whole comes to 6.7 years. Consequently, the major decisions mentioned tend to reflect the tensions of the rolling boom years that have marked the long shift from total war to uneasy peace.

Expansion and acquisition problems are named by one man in five. Such decisions have been long-range, predictive, and patiently optimistic. For example, one man con-

continued on page 51

HENRY S. REDDIG
Minneapolis-Moline Co.

HENRY BLACKSTONE
Servo Corporation of America

McCLURE KELLEY
Baldwin-Lima-Hamilton Corporation

ROBERT S. OELMAN
The National Cash Register Co.

HERMANN G. PLACE
General Precision Equipment Corporation

S. F. HINKLE
Hershey Chocolate Corporation

R. C. DOANE
International Paper Co.

Globe Photograph

PROBLEMS OF TOP MANAGEMENT: II

"NOBODY TELLS ME ANYTHING!"

Getting the Facts You Need for Decision

ROBERT L. KAHN and CHARLES F. CANNELL
Survey Reasearch Center, University of Michigan

THE VICE PRESIDENT of the Jefferson Appliance Company is sitting in his office late one afternoon muttering to himself. He is recasting the events of an extremely unsatisfactory day. At 9 o'clock he learned that customer complaints had reached a new high. As if to underline this statistic, an important and long-valued customer called at 10 o'clock to say that unless the delivery schedule became more dependable, he would be forced reluctantly to seek an alternative source of supply.

The vice president had decided to let everything else wait until he got to the bottom of this particular mystery. In order to avoid accusations and recriminations, he had begun by talking separately to each of the three department heads involved —sales, manufacturing, and engineering. Now, as he looks back on these three interviews, it seems to him that each of the men reported only the things that he felt the vice president could hear without drawing any adverse conclusions.

In short, our executive says bitterly: "Everybody covered himself, and I learned very little. I know it's always tough to talk to the boss, but after all I'm not going to fire anybody. I only want to know what the problems are, and I told them so. Our sales manager was glib and talkative; he lectured me for an hour on the excellent job sales is doing under handicaps. The head of manu-

facturing came in next and sat there like a deaf-mute for twenty minutes. Of course, he's never very communicative, but this time I had to pry every word out of him. I thought for a while I was getting further with our chief engineer, but he was really too busy defending himself to tell me anything.

"And yet I've got to have that information. Am I going to have to spend time in each of those departments myself to see what's wrong? No, that's ridiculous. They'd just put on a show for me. Should I plant a staff man in each department? That's too much like an internal intelligence system. But there ought to be some way I could get these three men to work this delivery problem through with me. After all, it's their problem, too."

The Wires Are Down

What does this situation present, besides a picture of incipient hypertension? It reveals a basic failure of communication. The executive is unable to get the facts he needs to solve an important problem. Yet information-getting is an essential part of the executive's job. He must have accurate information as a basis for decisions. But he cannot observe personally everything on which his decisions must depend. Some men who have tried this have merely become harried and inefficient, and acquired a reputation for prying and inability to delegate too. Most executives learn, however reluctantly, that they must rely upon others for the information they need.

It is an ironic fact of executive life that the higher the man goes in his organization, the more important his decisions become, and the more indirect must his channels of information be. The head of a large company is likely to base his judgments on information three or four times removed from direct operating experience. His role comes to consist largely of information-getting, information-evaluating, and information-giving—and his major activity turns out to be, often to the executive's own surprise, merely talking to people. The notion that an executive is a paper-pusher is out of date. Today, executives find that stacks of paper are gathering dust on their desks while they do the more important work of talking directly with colleagues and subordinates. Indeed, a few adventurous souls in the executive ranks have changed their office furniture to correspond more closely to the requirements of their job—and the deskless executive office has made its debut.

This is not to suggest, of course, that executives do nothing but acquire facts from their subordinates. It is certainly true, though, that the acquisition of information is one of the executive's major functions—something he must do well in order to be successful in the decision-making aspects of his job. The problem of getting information from subordinates is not restricted, of course, to company presidents. It extends to every level of supervision from foreman to vice president. Let us look at the problem of information-getting from the executive's point of view, and see how he can become a better interviewer of his own subordinates.

Penalties of Proficiency

Why is it difficult for executives to get information? Since we are all communicators by training and experience, why shouldn't an interview be a simple and efficient in-

HOW GOOD AN INTERVIEWER ARE YOU?

What are the rules for conducting a successful executive interview? Test yourself by answering the following true-or-false questions:

	True	False
1. Wording questions in advance interferes with the spontaneity needed for successful executive interviewing.	☐	☐
2. Thinking about what you should have said after an interview is over is probably a neurotic waste of time.	☐	☐
3. If you are doing a good job of supervision, you have no need for special information-getting techniques.	☐	☐
4. A subordinate will give only information that he thinks will please the boss.	☐	☐
5. A subordinate never gets much satisfaction out of being interviewed by the boss.	☐	☐
6. The best way for the boss to get good information from an employee is to talk to him outside the office.	☐	☐
7. An executive learns the most when the employee does not even realize that he is being interviewed.	☐	☐
8. The good interviewer listens well and avoids directing the conversation.	☐	☐
9. The interviewer learns most by sometimes putting the respondent on the defensive.	☐	☐
10. The best way to get information from an employee is to convince him that you are meeting on an equal basis—that you are both just employees of the same firm.	☐	☐

Score yourself on this test by counting one point for each "true" response and zero for each "false" response. The perfect score is zero. In the opinion of the authors, every one of these ten statements is, in fact, incorrect.

teraction between an expert sender and an equally expert receiver of messages?

There are many reasons. Some of them are closely tied to the very fact that we *are* so experienced in communicating. We have developed ways of reacting to each other that are intended, not to facilitate the communication process, but to protect us from appearing ridiculous or inadequate. And in most cases we are not content merely to avoid looking inadequate. We want to appear intelligent, thoughtful, and in possession of other assorted virtues. We want to put our best foot forward.

Most of us recognize that pressures are exerted on us through communications from other people. We are urged to join certain organizations, buy certain books, or smoke a particular brand of cigarette. People sometimes communicate in order to beguile us in a direction in which we may not wish to go. To such communication we sometimes reply with omissions and inaccuracies. This is our defense against letting ourselves be influenced against our will.

Failure to Listen

Again, through long experience we learn to anticipate what is likely to be said in a conversation. Often, therefore, we don't really listen. We may hear only what we expect to hear, basing our expectations on all sorts of clues—the speaker's voice or manner or dress, for example. We may listen only for the things that fit our purposes, stopping as soon as we have classified the speaker, satisfied our curiosity, or decided what we ourselves are going to say next.

These are the negative consequences of our skill in communication. Each of us comes to recognize that others may communicate with him for a variety of reasons—which may or may not be in harmony with his own purposes. As a result, everyone spends some of his attention and energy trying to *evaluate* each message addressed to him in terms of his own needs and others' motives.

The implications for the executive are clear. To become a successful information-getter, he must understand the motives and barriers to communication, and he must become skilled in creating an atmosphere in which the motivational forces to communicate are strong and uncomplicated. In short, he must become capable of handling the dynamics of interviewing.

The major barriers in an interview between an executive and one of his subordinates stem from the executive's powers to reward or to punish. The executive interviewer is burdened with a dual role. He is an information-getter during the period of the interview, but he is also a decision-maker whose actions have direct and important effects on the careers of his subordinates. It is hard for him to shed these attributes of power completely, and it is still harder for the subordinate to ignore them, even for the brief period of the interview. Even the possibility that his superior may end the interview with a less favorable view of his abilities, or that divulging certain information may bring some reprisal against him, may lead the subordinate to withhold or distort facts.

Another barrier to communication in the executive interview, closely related to fear of direct reprisal, springs from the subordinate's relationship to his own colleagues. Even if he is convinced that there is no danger of punitive action from his superior, other threats may restrict his willingness to communicate. He may be willing to speak about himself, but feel that he must parry questions that would require him to put others in a bad light. Executives who are insensitive to such feelings of obligation and allegiance may be puzzled to find, in the midst of an interview, that it has become impossible to get any more information.

THE AUTHORS • Robert L. Kahn and Charles F. Cannell are psychologists who have worked on interviewing techniques for a number of years. Dr. Kahn was formerly head of the Field Division of the U.S. Bureau of the Census and is now a program director of the University of Michigan Survey Research Center and associate professor of psychology at the University. Dr. Cannell was supervisor of student counselors at Ohio State University and later was responsible for devising interviewing techniques for large-scale field surveys conducted by the U.S. Department of Agriculture. He is now head of the field staff at the Survey Research Center and associate professor of psychology in journalism at the University of Michigan.

Dr. Kahn and Dr. Cannell are the authors of a recent book, *The Dynamics of Interviewing*, published by John Wiley & Sons, Inc.

A third important barrier to communication in the executive interview is the "psychological distance" between interviewer and respondent. We tend to communicate with people who will understand what we want to say and have some sympathetic appreciation of our viewpoint. When we are talking to a person whom we consider unable to understand and sympathize, we tend to withhold information. Ordinarily, in dealing with people, we judge the extent to which they are within the range of our communication, then decide what must remain unsaid.

Alone in the Executive Suite

It is a truism that presidents of companies are the loneliest men in the world. To a lesser extent, almost all executives have felt the isolating effects of climbing the organizational ladder. They have noted sadly how the informality and frankness of conversations among their subordinates compares with their own stilted and restricted discussions with some of the same men. As a term, "psychological distance" may be new to some executives, but the experience is all too familiar.

This, of course, is not wholly the executive's fault. We know that differences in position and experience contribute to the feeling of psychological distance between people. There are certain attributes of the executive job that shout "psychological distance" to the subordinate. The executive earns a higher salary and probably lives in a different neighborhood. His office is larger and differently appointed. He probably moves in different social circles. All these differences proclaim the gap between him and his subordinates, and lead the subordinate to be skeptical of his superior's ability to understand and sympathize with his problems. The executive interviewer must, therefore, prove his understanding and empathic ability. His job spells "psychological distance"; his behavior must counteract this message. And, there are specific insights and techniques that will help him in this situation.

For convenience we can divide the motivation to communicate into two kinds—extrinsic and intrinsic. Extrinsic motivation means that the communication is undertaken in order to bring about some result that

continued on page 98

Devaney Photograph

PROBLEMS OF TOP MANAGEMENT: III

ARE YOU OVER-ORGANIZED?

CARL HEYEL

"Hold the span of control to six." "Allow one personnel man for every 100 employees." "R&D costs should be 1 to 3 per cent of sales." Rules of thumb like these are popular among many management men, but they're likely to prove poor guides in a concrete situation. To know whether a company is over-manned and over-organized, and in what areas, top management must ask the right questions—and insist on the answers.

THE OLD SAW about the overcoat on the salesman's expense account—"It's there, but you can't see it"—has a moral for top management. "General & Administrative Expense" can cover a multitude of organizational wastes, and usually does. And following the biological law that a large dog has more fleas than a small dog, these wastes tend to multiply in geometric proportion as the organization grows and more and more tiers of authority and more and more specialized functions separate top management from the actual work.

Unless your company has recently made a thorough analysis of the activities of each of its organizational units, and unless corrective action has been taken on the basis of the analysis, *it is probably over-organized to some degree*. This can come about as a result of gradual accretions, of empire-building, even of nepotism in some cases—quite apart from the effects of changes in basic objectives or needs that may have occurred without corresponding organizational changes.

This article will not lay down specific ratios or dollar yardsticks for recognized activity units. Rather, it will attempt to outline the pattern of thinking that sound management should apply, by posing some of the searching questions management should ask itself about its operations.

"Yardsticks," in any event, are useful only for the most general perspective, since too many variations exist among enterprises, and too much depends upon specific circumstances and goals.

For example, a corporation with some $230 million annual sales of nationally branded household items has no market research department. The president insists that, aside from certain analyses performed by the sales department and the use of Nielsen ratings, no market research work is buried in other accounts. Only recently has he sensed the need for formalized market research because of problems created by low-markup items of acquired companies. Contrast this with a company selling some $4 million of antiseptics annually, which in a single year spent some $40,000 on market research into consumer attitudes and needs.

Obviously, any comparison for yardstick purposes would have to take into account the activities actually performed. In the case of market research, for example, what is charged to selling rather than market research? To what extent does the work of outside consultants parallel that of another company's crews of field investigators? "One-tenth of 1 per cent of sales" has been cited as a yardstick figure for market research, but this is quite meaningless if the costs charged to market research are not detailed.

In research and development, obviously, over-organization can be quite extensive. It can also be very, very costly, since the payout on any one project will usually be many years in coming. Here, also, the ratio of expenditures to sales will vary over broad ranges, and the often-quoted "1 to 3 per cent of sales" is not too meaningful for a specific company. The applicable management literature reveals that setting criteria for and evaluating results of R&D are today among management's most perplexing problems.

The accounting and control function is another area where wide swings about averages make comparisons with the practices of others difficult. Too little control reporting means that management must base decisions on guesswork; conversely, proliferating control reports often represent a high proportion of "made work." Even worse, they can stifle action by detailing the trees rather than mapping the forest.

In view of the hazards of generalization, how can management assess its own situation realistically? The fact is that it can attain insight and plan corrective action by subjecting all activities to certain searching questions. The questions offered here are applicable to any type of business (and to governmental operations as well). While the pattern is general, the answers will vary for the individual company, resulting in a custom-built analysis.

THE AUTHOR • Carl Heyel has been director of planning for the Mergenthaler Linotype Company and associate partner, George H. Elliott & Company, management consultants. As executive assistant to the Mayor's Committee on Management Survey of the City of New York, he had senior responsibility for the comprehensive examination into the management of all city departments conducted in 1950–1953.

Before joining the Mayor's Committee, Mr. Heyel had been assistant to the president of Lehn & Fink Products Corporation, on the management staff of Union Bag & Paper Corporation, and conference planning director for the American Management Association. He is editor and co-author of the widely known *Reading Course in Executive Techniques*, published by Funk & Wagnalls, editor of the *Foreman's Handbook*, a standard reference work published by McGraw-Hill, and the author of several other books on management. He has been a lecturer on business policy at the Graduate School of Business Administration, New York University.

1. Where do we go from here?

How do the long-range objectives of the company influence basic organizational emphasis? The term "long-range planning" or "LRP" appears frequently in current management literature. Frequent use of the term may be new, but the activity itself must have been going on in every currently successful company for more than a decade—even if only under the top official's hat. But unless top management makes a conscientious effort to spell out its long-run objectives in writing, organizational imbalances and wastes are bound to result. For one thing, clear agreement on objectives will determine the justification for special staff and research organization units in addition to the traditional staff-service functions (accounting, purchasing, personnel, and so on), and point up the need for emphasis on research and development, advertising, training, and the like. And, of course, basic decisions on centralization vs. decentralization will dictate the extent to which staff organization will be centralized or localized.

If company policy calls for actively planned product diversification, this may well justify a separate product planning department—perhaps composed of only one man, perhaps of five—reporting to the chief executive. (Booz, Allen & Hamilton reports, "There are a number of one-man product planning departments, and one we know that totals over 200 employees.")

Companies contemplating "forced draft" expansion through acquisition may also want to set up a special department (again, often one-man) reporting high up in management. Similarly, government contracts departments are justified where plans call for special efforts to get development or manufacturing contracts.

In a large enterprise or a fast-expanding one, a central corporate planning or corporate programming department may be justified. But even in a large enterprise, only a small organization unit is needed. It should comprise a broad-gage, high-caliber generalist, aided by one or two specialists and a small office staff. It obviously must report to the top—and must stick to the basic analyses and interpretations needed for forward programming. It should not become enmeshed in methods and procedures that are properly the function of staff units within line departments.

2. Is the top man spread too thin?

Is the chief executive's span of control unwieldy—that is, does he have too many people reporting directly to him? (This question is also applicable in individual divisions, but is less likely to present a comparable problem there.) Classic organization theory is often quoted as limiting the maximum effective span of control to five, or at the most six, immediate subordinates, if the functions that are being coordinated in-

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GETTING MORE SALES FOR YOUR MARKETING DOLLAR

RICHARD D. CRISP

"You have to spend money to make money" is an old-time business maxim. But are you spending too much to make too little? Unless your company is doing an exceptional marketing job, it's not getting the volume it should from every sales territory. Here's a simple way to spot and take advantage of those neglected sales profit opportunities.

THESE ARE STRANGE and perplexing days for marketing executives. I know, because I spend a good share of my working hours talking to them.

Business generally, they'll tell you, is very good. Better than it's been for very long at any time in the past, some will add. Yet marketing executives and the whole marketing arm of the business are under greater pressure from above than ever before.

The pressure isn't general. It is focused specifically on two points. The pressure is on marketing executives to produce more sales volume. That's Point 1. But pressure is even greater, if possible, to bring marketing costs down—at least in terms of the proportion of the sales dollar they represent.

Why this tremendous pressure to sell more for less? A look at Chart 1 (overleaf), based on figures from an actual company, will go a long way toward explaining it.

Back in 1937, this company had a breakeven point just a little higher than $5 million annual volume. Sales above that level generated profits at a highly satisfactory rate. Ten years passed, and the picture changed as illustrated on the chart. In 1947 it took sales volume of almost $15 million to make the treasurer uncork the black-ink bottle. Add another dizzy decade, and you have today's problem situation in capsule form. Until sales top $24 million, the company's operations are in the red-ink area.

Pressure on Profits

The climbing cost line is putting pressure on profits, and it is that pressure on profits generally that is being transmitted by top management to the marketing division. It's that pressure on profits that creates today's seemingly inexorable demands to sell more for less.

Most companies have had first-hand experience with one of the most unpleasant facts of life in these days of high costs: A very slight decline in sales volume typically produces a much larger decline in profits. A slight gap between forecasted volume and actual sales can have the same devastating effect.

Here's a specific example, based on the experience of the same company. The forecast for the last fiscal year called for $33 million in sales. But some uncooperative competitors fogged up the company's crystal ball. An unprecedented price-cutting program clipped company volume to $30 million.

It had been estimated that $33 million in sales would develop a respectable before-tax profit of more than $4 million. Sales were 10 per cent lower than expected. What happened to profits? You know the answer—they fell far lower than expected. The 10 per cent gap between estimated and actual sales led to a 55 per cent drop in before-tax profit.

What can the marketing executive do to get out of this pressure tank? Is

there a promising escape hatch through which he can climb? Many executives have found, often considerably to their surprise, that there is. Even more surprisingly the way toward a low-pressure area is rather well marked for those who know how to read the markers.

What is involved is a positive program of marketing cost control. Such a program, it has been demonstrated in company after company, is practical and effective. Even more important, the development of a program tailored to the specific requirements of your business calls for no special training. What is required is a skilful combination of two ingredients, both freely and easily available. Ingredient No. 1 is applied common sense. Ingredient No. 2 is a willingness to learn from, and apply to the management of your own marketing tasks, the principles and lessons that have emerged from the experience of other companies.

The skeleton program outlined below can be "fleshed out" with the specifics of your own business and put to work for you with a minimum loss of time and a minimum expenditure of energy.

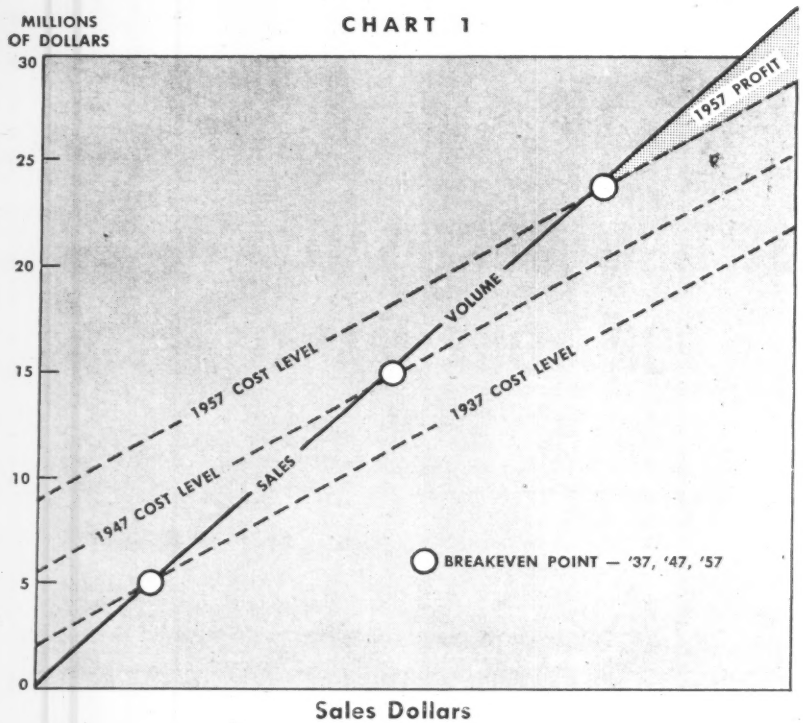
Accentuate the Positive

Let's first consider your over-all approach to the task of reducing marketing costs. There are two common approaches. One is positive, the other negative.

If you take the negative approach, you consider trimming elements out of your marketing operation. That's one way to get your costs down. You can reduce your own weight, too, by hacking off an arm or a leg. If you are interested in the survival of a healthy organism—your own or that of your sales organization—a somewhat different approach is indicated. It begins with a recognition of the fact that marketing costs do not exist in a vacuum. They reflect and are a function of the over-all level of marketing effectiveness already achieved. To reduce relative marketing costs in a way that pays off, concentrate on finding positive ways of increasing marketing effectiveness.

That means getting more sales volume from a sales force of the same size, or more sales from sub-par sales territories, or more volume on high-profit products rather than low-profit ones. It is no more complicated and complex than that. Often, before you can move in this positive direction, you must remove a major obstacle. That obstacle is a tendency to feel defensive about how well you are doing different parts of the marketing task now.

CHART 1



You can paste this in your hat: No matter how well you are doing, overall, *there are areas in which improved performance is possible.* That improved performance will reduce relative costs and take much of the pressure out of the top-management demand to sell more for less.

The Cost-Results Relationship

In the job of increasing your marketing effectiveness, one additional vital point should be kept in mind: the relationship between cost of anything you do—in specific areas of marketing, or in this area of increasing your marketing effectiveness—and the results of that cost expenditure.

There is only one reason to spend a dollar on marketing, whether that expenditure is for an additional salesman, for advertising, for marketing research, for tabulating equipment, or what have you. Here's the rule to remember: *You should authorize an expenditure only when it is your considered judgment that the result will be a contribution to profit substantially in excess of its cost, within a reasonable time period.* Your concern is with increased profit, remember—not increased sales. If a proposed expenditure cannot measure up on that cost-results scale, forget it. Save your money.

This basic viewpoint prejudices you in favor of a lean approach to your marketing program. And that's good.

Getting Started

Now let's begin to build the lean framework of an effective program for achieving reduced marketing costs through increases in marketing productivity. Where should you start?

That question is authoritatively answered by the results of an American Management Association study *(Research Report No. 22)* which explored the relative importance and value of specific activities in marketing planning and control. Out of a list of 37 specific activities, a sample of 180 large, well-managed companies singled out one as "most important" more frequently than any other. What was that activity? "Analysis of territorial sales opportunities or potentials." Not far behind in rank was this closely related function: "Measuring territorial variations in sales yield, market share, sales effectiveness."

Those two activities fit together

like a hand and a glove to provide the start of a fact-based program for increasing marketing effectiveness and reducing relative marketing costs. The relationship between them is close and obvious. First, you measure the potentials—the opportunity to make sales—in your different territorial units. With those potentials established, you then compare what you are selling in each territorial unit with what you should be selling. Guided by a factual picture of the variations in territorial sales performance, you next proceed to do something about it—to pinpoint the causes of weakness in the sub-par territories, and to take effective action to overcome that weakness.

Needed: A Market Index

Let's get a bit more specific about this. Just how do you measure territorial sales opportunities? The answer is that you use a tool now widely adopted in marketing and analysis work—a market index. We might define a market index as a yardstick for measuring the relative sales opportunity in different territorial units. There are two basic types of market index—general and specific. A general market index (such as "buying power," total retail sales, or even population) is assumed to reflect the presence or absence of the opportunity to sell a wide variety of products. A specific market index is one which reflects the opportunity only for a specified type of product.

It is important to select an index that comes as close as possible to your own particular product in pattern, because there are wide variations from product type to product type. Suppose you were selling a product to be used on automobiles, like seat covers. Total automobile registrations would provide an excellent market index—far better than population, because population varies widely quite independently of automobile sales. Thus in Manhattan there are plenty of people, but because of generally short distances, the excellence of local transportation, and the scarcity and high cost of garage space, automobile ownership per capita is low. In contrast, it is far higher in Los Angeles, where the opposite conditions prevail.

Or suppose you were selling something like anti-freeze or auto defrosters. You would begin with automobile registration figures and then modify them for climatic factors, reducing the registration figures in Florida, for example, and boosting those in Minnesota.

There are a wide range of market index possibilties open to you—in governmental sources, from trade associations, and from publications such as *Sales Management* magazine's annual *Survey of Buying Power* issue.

All you need in order to identify the territories that represent the most inviting opportunities for profitable expansion of sales volume is an index that offers a reasonable promise of approximating the sales opportunities for the product or products in which you are interested. With that index in mind, you then follow this series of steps toward improved territorial sales performance. Chart 2 illustrates these in specific terms.

What to Look For

Determine territorial potential. You begin by breaking down your market index by sales territories, districts, regions, and so on. Then you know the potential, territory by territory. As a generalization, sound marketing practice calls for territories that are as nearly equal in potential as possible. Chart 2 illustrates the situation in three sales districts—Cleveland, Cincinnati, and Chicago—with the relative potential indicated on Line 1.

Determine actual volume. The potential figures show how territorial volume *should* be divided. The next step is to determine (usually without difficulty, from existing sales records) how volume actually *is* divided. The actual sales figures for each of the three districts are shown on Line 3.

Calculate sales par. To make an easy comparison of the volume you are getting from a territory and what you should be getting, it is only necessary to develop a "sales par" for each territory—the dollar volume you would be getting if the level of sales performance were exactly as high as, and no higher than, your national level. To get the sales par of a territory, you multiply the market-index percentage (Line 1) by the company's total volume for the time period being analyzed. In the example given in Chart 2, that figure is $10 million. The resulting sales par figures are shown as Line 2.

Measure variations. The next step is to reduce territorial variations in sales performance to a meaningful basis that is simple and easily understood. Many companies use an index figure for this purpose. An index of sales performance (or PI for "performance index") is determined by dividing actual sales for a territory by the par for that territory. This has been done for the three districts shown in Chart 2, and the result (expressed as a percentage) is shown on Line 4.

What you are doing in this sales-control approach is determining how individual sales territories vary in their performance, with your over-all company performance level as a

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CHART 2

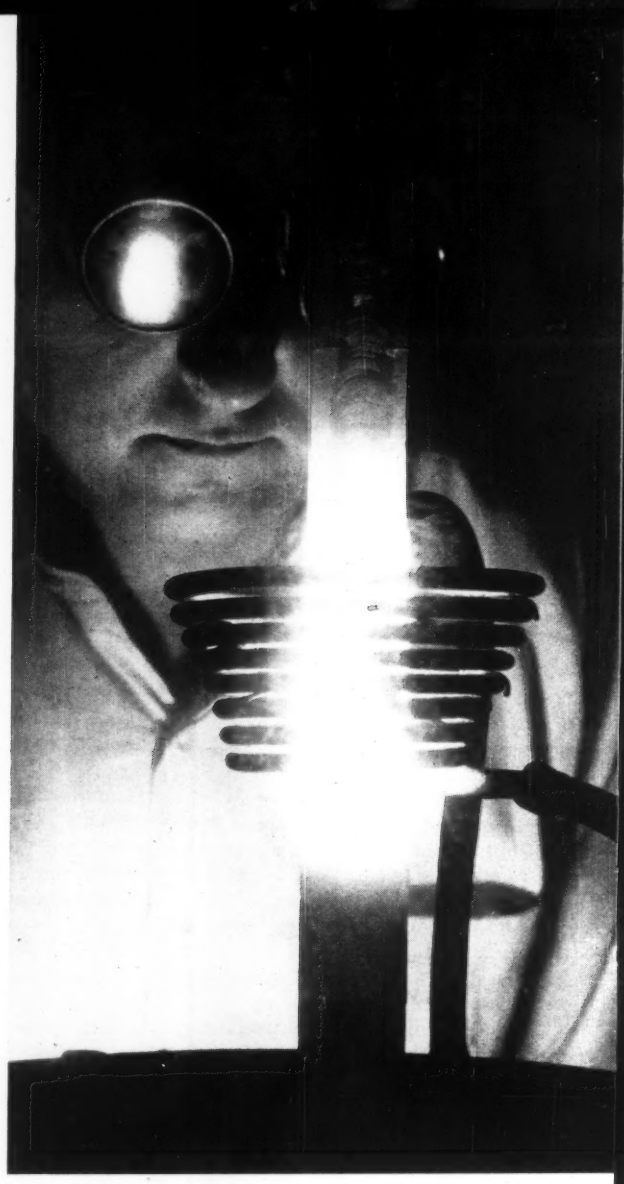
MEASURING TERRITORIAL VARIATIONS IN SALES PERFORMANCE

(Assumed Company Volume in Year Analyzed: $10 Million)	SALES DISTRICT Cleveland	Cincinnati	Chicago
1. Percentage of U.S. potential in district (from market index)	5.324	4.333	8.791
2. Sales par (market index times sales)	$532,400	$433,300	$879,100
3. Actual sales (from company records)	330,620	446,304	721,741
4. Index of sales performance (PI)	62	103	82

PRODUCTS, PURITY, and PROFITS

MELVIN MANDELL, *Industrial Editor*

A few years back, precise purity levels were a matter of practical interest to only a small minority of manufacturers. But new times and technology have taken purity out of the laboratory and put it to work on the production line—to the profit of consumer and producer alike.



Niobium under purification by "cage zone melting" in an evacuated bell jar at Westinghouse Research Laboratories. This process is a variation on zone refining, a new purification technique that should find greatest use in the chemical industry. Because of its high melting point, pure niobium is useful in the construction of missiles, jets, and nuclear reactors.

AT AN ever-increasing pace, profitable new products, new companies, and even new industries are evolving from advances in industrial purification. For many companies today, new purity levels may open up new markets and provide opportunities for higher profits.

On the negative side, failure to maintain present levels of purity can lead to the loss of present profits. For the producer of raw materials, a below-spec batch can mean the loss of customers. For the user of raw materials, impure raw materials can mean defective end products. Increased awareness of the problems and opportunities connected with industrial purity has led some overeager manufacturers to pay for more purity than they need—an elusive and expensive drain on a company's resources.

No matter what the product, producing or using the proper levels of purity calls for coordinated effort among all departments. In a material-producing company, geologists must locate basic raw material deposits of the best quality; process designers must develop plants that can use lower-grade inputs if need be; researchers must constantly seek new ways to meet customer demands for higher purity; production and quality control must meet customer specifications; the salesmen must locate markets for the various grades produced; and, lastly, the traffic manager must see that products are shipped in containers that won't contaminate them. In a material-using company, the purchasing agent must buy materials that are neither more nor less pure than the engineers specify; production men must take care not to contaminate the material while it is in process; and researchers must be constantly seeking ways of using lower-grade, less expensive materials, or justifying higher purity.

And the top executives in both have to keep all these people on top of the purity problem, and give their efforts the necessary support.

Why is there so much more concern today—some technical people say there is too much—about purity of materials? First, never before has technology demanded so much of them. Even with all the new materials, such as plastics, that have been developed and all the new combinations of older materials and new ways of preparing them, many demands for increased strength, corrosion resistance, or performance at new extremes of heat or cold remain to be met. One important way to gain new improved properties or to allow materials to be worked closer to their

ultimate capacities is to remove impurities. The results can be spectacular. Titanium was considered a useless, brittle metal until most of the impurities were removed. When zirconium was purified by the removal of hafnium, its great use for nuclear reactors became apparent. Electrolytic refining of copper improves its electrical conductivity by 100 per cent.

Still more gains will be made as other materials are further purified. Refined to extreme purity in a French laboratory, aluminum turned out to be as ductile as lead. Although a commercial grade of that purity may never be marketed, it's significant that the Aluminum Company of America has just raised the purity of its ordinary pig aluminum from 99 per cent to 99.5 per cent.

Another reason for concern about impurities is the increasing complexity of plant processes. With more steps, opportunities multiply for impurities to gum up the process.

"Impurities" May Be Needed

A third reason for the current interest in impurities is that their role in materials is better understood. Many substances that were once considered trace impurities are now recognized as essential ingredients or catalysts. For example, when the purity of nitric acid was raised to meet the demands of the chemical industry, brass fabricators ran into trouble. Brass dipped into a bath of nitric and sulfuric acids wouldn't brighten as usual. A small amount of hydrochloric acid, always considered an impurity in the older grade of nitric, was found essential to brightening. Now the fabricators, in effect, "contaminate" all the nitric acid they buy with hydrochloric.

Chemist W. Stanley Claubaugh of the National Bureau of Standards says there is still a lot to learn about this catalytic action of so-called impurities in many reactions, and as scientific knowledge grows, much progress can result. It is cheaper to eliminate one offending impurity than to try to eliminate all.

Researchers are now finding impurities that no one knew about before, thanks to mass spectrometers, activation analysis with radioisotopes, spectroscopy, and dozens of other new devices and skills. There is also a new kind of impurity around that few had to contend with before

CHEMICALS: Very few impurities can be removed by handpicking as is being done here at Sylvania's Towanda, Pa., plant. Lumps of phosphors containing impurities do not glow under ultraviolet light. High-purity phosphors are needed for flourescent lamps, sign tubing, cathode ray and TV picture tubes. Impurities must be below the parts-per-million level.

METALS: This Direct Reading Spectrometer at Ford's River Rouge plant tells the technician just what the components and the impurities are in the metal sample burning at the left. The dials on the $80,000 instrument, made by Baird-Atomic, read directly in percentages. The machine, which can be sensitized to a variety of metals, makes the test in a few minutes.

PLASTICS: Not all impurities are molecular in size. At Acheson Dispersed Pigments Co., Philadelphia, this RCA electronic metal detector signals the attendant when the granular polyethylene passing under it contains foreign metal particles. Not only are customers protected, but Acheson is warned when some processing machine is wearing excessively.

World War II—radioactivity. As atomic energy and radiation processing (see DR&MI, August 1957, p. 47) become an economic reality, they will breed new problems. Purity of fuel containers in nuclear reactors is critical. If the metal that encases the uranium fuel corrodes, the uranium could run out and contaminate the system. Not only is decontamination expensive, but there is always the remote possibility of a catastrophic explosion.

How Pure Is Pure?

"Purity" and "impurity," of course, are relative terms. Despite the easy avowals of "absolutely pure" in consumer advertising, there is no such thing as absolute purity in industrial or consumer products. What may be pure to a soap manufacturer is impure to a metallurgist who works at the 99.995 per cent level. And the electronics industry is daily achieving such miracles of purity on the production line (reducing impurities to parts per 10 billion) as to make other levels of purity seem like gross contamination. In effect, the electronics industry is introducing a new concept of purity in industrial products. By purifying materials in production to levels that other industries can't even achieve in the research laboratory, it is stimulating other technologies to new and profitable efforts.

In many cases, what is an impurity for one manufacturer may be an essential ingredient for another. In marketing lead, for example, the presence of copper is crucial. To the customers who extrude lead into pipe, copper is a contaminant that makes the material difficult to work. To makers of lead-lined chemical reactors, copper is essential to make the lead more resistant to corrosion.

How Impurities Differ

Most of the impurities that are of concern to industry are of molecular size and evenly distributed throughout the substance. In metals they rest between crystals, limiting strength and corrosion resistance. In other materials, they affect all sorts of properties—polymerizing ability, for example, in the hydrocarbons that are formed into plastics.

But some significant impurities are not molecular or homogeneous. Better classified as "foreign bodies," they may be bits of metal, for example, in plastics and textiles. If the material is used as an electrical insulator, these foreign bodies constitute a harmful impurity.

Impurity levels can change with time. Many materials absorb gases and or moisture, and these can greatly affect their performance. Such materials require special treatment or coatings during fabrication or in service to prevent absorption of impurities.

The Growing Role of Research

As purity requirements rise, manufacturers to whom purity is important will do well to supply themselves with the most imaginative and experienced researchers. Getting results with extremely pure materials is more art than science, according to Dr. M. F. Perkins, in charge of pure metal development for American Smelting and Refining. Purity is affected by temperature, humidity, reaction time, crucibles, cooling, and dozens of other factors. To maintain levels from day to day, elaborate records—a sort of "family tree"—must be kept, with data on such questions as: When was the experiment started? What were the ambient conditions? Who supplied the chemicals? Did the experiment run straight through, or was it halted overnight or over the week-end?

And the researchers must be provided with elaborate and expensive tools. In some cases these costly instruments are needed because there is no wet chemical analysis of comparable accuracy. In other situations, the instrument does the job much faster than it could be done by classical methods. Most of the instruments run into tens of thousands of dollars, but as a rule they are long-lived and nearly maintenance-free. In addition, most are readily available from American manufacturers — although some instruments, like the electron microscope, are also being imported from Germany and Japan.

The laboratory environment must, of course, be carefully controlled—practically all the new ones being built are fully air conditioned. Even the walls require special treatment. In one industrial lab, every time the scientists ran a spectrographic analysis, they were puzzled to detect calcium. The mystery was solved when they discovered that the walls were calcimined.

Manufacturers concerned with the purity of their product must expect their engineering or process design departments to keep track of new refining techniques in other industries, even in completely unrelated fields. Developed to refine germanium to incredible purities for transistors and other electronic devices, zone refining (see photo on p. 44) is one of the techniques that is meeting an enthusiastic reception outside of its original home. According to Dr. Earle E. Schumacher, top metallurgist of Bell Telephone Laboratories, zone refining should eventually find most application in the chemical industry. Among the chemicals that have already been refined experimentally by the new process are naphthalene, benzoic acid, pyrene, anthracene, benzol, and fatty acids.

Interest in the process is widespread. Among those who have approached W. G. Pfann, the brilliant inventor of zone refining, for information are a wax producer, a large manufacturer of inorganic chemicals, a TNT manufacturer in search of a better explosive, and a mining engineer seeking to concentrate precious metals.

Vacuum-melting is another one of the exciting new purification processes. Usually all air is removed from a chamber and the material melted in an extremely high vacuum, but sometimes an inert gas atmosphere is used. Then the purity of the inert gas becomes significant. Titanium must be melted in the absence of air or it is worthless, and even some steels are being vacuum-melted to exclude weakening gases.

Maintaining Purity in Production

The role of production and quality control people in maintaining purity is obvious—and crucial. If they don't insure the proper grade of purity, all the other efforts are lost. One factor that makes production's job even harder is the generally declining quality of our natural resources. Crude oils are sourer, and metal ores contain less metal and more impurities per ton. The days when the steel industry could practically dump ore from the Mesabi range right into its blast furnaces are past. To complicate matters, the surrounding air and waters are more polluted than ever.

As compensation, the production

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FOURTEEN IMPORTANT RATIOS

IN 24 WHOLESALE LINES

Corson Photograph from Devaney

How sound is your company's financial health? How does it compare with that of other companies in your line of business? You won't, of course, find the answers merely by checking your operating ratios against those of your competitors. Discrepancies may or may not be significant—but it is always well to know when they exist, and why.

The 14 Important Ratios, first completed on 1931 financial statements by Roy A. Foulke, of Dun & Bradstreet, Inc., and since then compiled under his direction, offer a unique yardstick for business men. The Ratios for retailers appeared in last month's issue; manufacturers' ratios will be published in December.

Line of Business (and Number of Businesses)	Current Assets to Current Debt	Net Profits on Net Sales	Net Profits on Tangible Net Worth	Net Profits on Net Wkg. Cap.	Net Sales to Tangible Net Worth	Net Sales to Net Working Capital	Average Collection Period	Net Sales to Inventory	Fixed Assets to Tangible Net Worth	Current Debt to Tangible Net Worth	Total Debt to Tangible Net Worth	Inventory to Net Working Capital	Current Debt to Inventory	Funded Debts to Net Wkg. Capital
	Times	Per Cent	Per Cent	Per Cent	Times	Times	Days	Times	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
FOR 24 WHOLESALE TRADES—1956—MEDIANS AND QUARTILES														
Automobile Parts and Accessories (190)	**2.98**	**1.93**	**8.07**	**10.94**	**3.81**	**4.87**	**39**	**5.3**	**13.9**	**43.3**	**73.3**	**89.0**	**59.8**	**23.4**
Baked Goods (49)	**1.68**	**2.18**	**11.95**	**40.71**	**5.07**	**17.02**	**13**	**25.0**	**72.8**	**37.1**	**59.5**	**83.9**	**138.5**	**101.6**
Cigars, Cigarettes, and Tobacco (77)	**2.29**	**0.39**	**5.59**	**6.69**	**13.48**	**17.53**	**15**	**22.1**	**12.4**	**58.1**	**108.9**	**80.3**	**96.3**	**21.8**
Confectionery (23)	**3.50**	**1.67**	**9.07**	**13.87**	**6.33**	**8.56**	**24**	**17.5**	**8.1**	**24.1**	**29.1**	**60.5**	**59.9**	**25.7**
Drugs and Drug Sundries (70)	**2.40**	**1.59**	**8.73**	**9.91**	**5.38**	**6.98**	**32**	**7.8**	**11.7**	**62.9**	**93.7**	**89.4**	**74.5**	**21.5**
Dry Goods (158)	**3.15**	**0.93**	**4.04**	**4.90**	**4.09**	**4.90**	**46**	**5.9**	**4.4**	**38.9**	**70.3**	**69.9**	**62.9**	**18.5**
Electrical Parts and Supplies (121)	**2.23**	**1.55**	**8.56**	**10.20**	**5.70**	**6.60**	**42**	**7.6**	**11.2**	**65.7**	**105.4**	**82.8**	**96.0**	**14.2**
Fruits and Produce, Fresh (50)	**3.12**	**1.49**	**9.27**	**14.50**	**10.15**	**16.14**	**19**	**45.8**	**19.7**	**23.1**	**84.4**	**30.1**	**187.9**	**48.7**
Furnishings, Men's (29)	**3.33**	**1.38**	**3.96**	**5.07**	**2.84**	**3.21**	**52**	**4.4**	**3.9**	**31.8**	**72.4**	**68.6**	**67.2**	**16.4**
Gasoline, Fuel Oil, and Lubricating Oil (45)	**1.90**	**0.94**	**7.09**	**19.97**	**6.44**	**14.36**	**33**	**20.8**	**38.4**	**45.0**	**126.5**	**58.4**	**156.7**	**29.9**
Groceries (254)	**2.76**	**0.63**	**5.57**	**7.53**	**8.31**	**10.57**	**16**	**10.2**	**13.7**	**46.3**	**93.6**	**96.9**	**58.3**	**26.5**

14 important ratios IN 24 WHOLESALE LINES

Line of Business (and Number of Businesses)	Current Assets to Current Debt	Net Profits on Net Sales	Net Profits on Tangible Net Worth	Net Profits on Net Wkg. Cap.	Net Sales to Tangible Net Worth	Net Sales to Net Working Capital	Average Collection Period	Net Sales to Inventory	Fixed Assets to Tangible Net Worth	Current Debt to Tangible Net Worth	Total Debt to Tangible Net Worth	Inventory to Net Working Capital	Current Debt to Inventory	Funded Debts to Net Wkg. Capital
	Times	Per Cent	Per Cent	Per Cent	Times	Times	Days	Times	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
FOR 24 WHOLESALE TRADES—1956—MEDIANS AND QUARTILES														
	5.65	2.79	10.87	11.51	4.74	4.91	29	5.9	5.3	19.1	41.1	71.0	30.7	7.5
Hardware (199)	**3.40**	**1.70**	**6.32**	**7.50**	**3.35**	**4.09**	**34**	**4.4**	**12.9**	**34.5**	**61.5**	**88.0**	**49.3**	**17.0**
	2.43	1.19	3.29	3.88	2.59	3.08	44	3.3	23.0	63.7	130.9	110.4	72.4	30.5
	6.02	2.74	9.58	15.44	5.31	7.45	31	7.5	1.4	19.9	32.1	47.7	40.1	5.8
Hosiery and Underwear (37)	**3.57**	**1.09**	**2.88**	**5.02**	**3.51**	**5.15**	**39**	**5.9**	**3.5**	**42.7**	**56.0**	**72.1**	**62.0**	**20.3**
	2.03	0.33	1.95	2.06	2.28	3.12	60	4.4	11.8	72.7	161.8	99.6	98.9	36.3
	3.04	1.61	9.78	10.54	8.34	9.64	29	9.8	4.9	44.5	74.4	69.1	66.1	10.8
Household Appliances, Electrical (100)	**2.03**	**0.92**	**6.38**	**7.36**	**7.19**	**7.87**	**41**	**6.9**	**9.3**	**80.9**	**127.9**	**89.4**	**96.4**	**20.4**
	1.59	0.30	2.02	2.93	5.35	5.51	52	5.4	23.6	129.9	182.9	128.3	132.8	32.5
	4.34	5.43	19.14	25.55	4.96	9.61	21	12.3	11.6	23.1	42.8	62.5	35.6	9.6
Iron and Steel Sheets, Strips, Bars and Plates (60)	**2.92**	**4.34**	**13.38**	**17.41**	**3.39**	**4.12**	**28**	**6.3**	**24.5**	**36.5**	**65.7**	**93.2**	**59.2**	**17.8**
	2.12	1.52	5.47	11.23	2.68	3.01	38	3.5	43.3	61.3	78.3	105.2	98.6	27.3
	5.39	3.93	12.83	19.01	9.08	13.03	25	20.3	3.0	16.2	48.0	43.5	45.0	17.5
Lumber (96)	**3.27**	**1.18**	**5.24**	**9.31**	**4.80**	**7.61**	**38**	**9.3**	**9.2**	**33.6**	**77.9**	**67.0**	**72.3**	**29.3**
	2.17	0.23	1.55	1.73	2.74	4.39	57	5.5	24.2	64.7	127.1	96.8	115.4	42.6
	4.75	3.91	13.13	16.40	5.94	8.74	26	10.1	8.2	19.0	30.6	51.4	38.8	6.2
Lumber and Building Materials (90)	**3.15**	**2.15**	**8.22**	**9.97**	**3.95**	**4.56**	**38**	**6.2**	**16.8**	**32.5**	**51.6**	**73.9**	**65.6**	**20.9**
	2.23	1.22	4.80	7.60	2.40	3.76	59	5.0	36.1	58.5	104.1	100.9	106.2	31.2
	3.81	1.67	22.65	36.33	14.55	30.63	9	83.0	13.9	20.4	30.4	37.8	85.8	15.3
Meat and Poultry (37)	**2.05**	**1.12**	**10.22**	**19.14**	**9.56**	**20.41**	**13**	**35.5**	**29.1**	**62.4**	**78.7**	**70.7**	**143.4**	**28.6**
	1.50	0.72	5.93	10.43	6.18	8.91	26	14.2	42.4	74.0	87.4	91.8	258.1	62.3
	9.50	5.11	15.94	21.71	3.92	6.33	26	8.2	7.2	10.1	48.9	53.8	26.3	5.6
Paints, Varnishes and Lacquers (33)	**3.59**	**2.49**	**6.39**	**10.56**	**2.91**	**3.48**	**32**	**4.2**	**19.5**	**27.4**	**59.1**	**69.3**	**62.6**	**32.9**
	2.31	0.84	1.39	1.69	1.77	2.23	58	3.2	31.7	48.9	99.7	85.6	95.7	60.2
	3.95	3.22	15.97	21.05	7.66	9.61	28	9.9	5.4	26.1	50.4	55.6	45.7	13.0
Paper (130)	**2.70**	**1.43**	**7.99**	**9.77**	**4.95**	**6.36**	**34**	**7.0**	**11.9**	**48.7**	**93.6**	**81.4**	**79.2**	**20.1**
	1.99	0.88	5.89	6.71	3.67	4.48	43	5.8	25.6	81.3	135.4	102.6	111.5	35.7
	5.14	3.44	16.51	17.85	5.54	6.26	28	7.9	6.0	18.9	34.1	63.1	36.0	6.8
Plumbing and Heating Supplies (140)	**3.13**	**2.08**	**9.85**	**10.72**	**3.97**	**4.83**	**38**	**5.9**	**15.1**	**37.9**	**74.8**	**81.8**	**58.6**	**19.9**
	2.19	1.11	4.99	5.55	2.95	3.66	47	4.5	26.7	69.8	134.8	107.1	82.9	37.3
	3.81	1.90	12.14	14.33	6.29	7.32	39	9.3	1.4	32.6	50.2	52.3	59.4	2.9
Shoes, Men's, Women's and Children's (55)	**2.56**	**1.06**	**4.95**	**5.81**	**5.09**	**5.51**	**56**	**7.9**	**4.6**	**55.8**	**82.7**	**69.2**	**100.2**	**14.5**
	1.78	0.39	1.73	1.82	3.47	3.62	72	6.4	8.2	106.3	168.1	103.3	143.4	26.0
	3.49	1.53	8.73	13.96	8.19	11.34	20	14.5	3.8	29.2	65.3	56.8	62.7	6.5
Wines and Liquors	**2.10**	**0.97**	**6.29**	**7.46**	**6.49**	**8.95**	**35**	**8.0**	**18.6**	**67.6**	**95.2**	**83.1**	**106.3**	**15.2**
	1.57	0.30	2.01	3.84	4.62	5.89	53	6.2	31.6	123.7	155.1	125.9	156.2	32.2
	3.60	1.56	8.48	13.08	8.06	9.07	40	19.1	1.9	22.3	31.1	19.2	101.4	7.7
Womenswear, Coats, Suits and Dresses (31)	**2.32**	**0.50**	**1.97**	**2.50**	**4.75**	**6.19**	**58**	**9.6**	**7.2**	**56.4**	**86.9**	**48.3**	**149.7**	**36.6**
	1.73	0.33†	1.46†	1.83†	2.54	3.99	69	4.8	19.0	98.1	135.0	90.4	228.3	54.1
WHOLESALE GROCERS—BY SIZE (TANGIBLE NET WORTH) CLASSES—MEDIANS ONLY														
Under $200,000	**2.30**	**0.57**	**5.57**	**6.09**	**9.88**	**10.38**	**16**	**9.8**	**11.8**	**60.7**	**98.1**	**111.6**	**67.4**	**38.8**
1956 $200,000-$500,000	**2.90**	**0.64**	**5.56**	**7.67**	**7.38**	**10.96**	**14**	**10.2**	**12.6**	**42.0**	**77.8**	**90.2**	**55.2**	**25.5**
Over $500,000	**2.69**	**0.67**	**6.18**	**10.34**	**7.18**	**11.51**	**19**	**11.8**	**18.9**	**49.4**	**93.4**	**99.3**	**59.2**	**32.5**

DEFINITIONS OF TERMS

THE RATIOS—The data used are based upon a representative sampling with a tangible net worth which only occasionally is below $50,000. . . . The center figure for each of the twelve lines is the median. The other two figures in each line are quartiles: for each ratio they indicate the upper and lower limits of the experiences of that half of the concerns whose ratios are nearest to the median. When any figures are listed in order according to their size, the median is the middle figure (same number of items from the top and the bottom) and the quartiles are the figures that are located one-quarter and three-quarters down the list.

COLLECTION PERIOD—The number of days that the total of trade accounts and notes receivable (including assigned accounts and discounted notes, if any) less reserves for bad debts, represents when compared with the annual net credit sales. Formula—divide the annual net credit sales by 365 days to obtain the average credit sales per day. Then divide the total of accounts and notes receivable (plus any discounted notes receivable) by the average credit sales per day to obtain the average collection period.

CURRENT ASSETS—Total of cash, accounts and notes receivable for the sales of merchandise in regular trade quarters less any reserves for bad debts, advances on merchandise, inventory less any reserves, listed securities when not in excess of market. State and municipal bonds not in excess of market, and United States Government securities.

CURRENT DEBT—Total of all liabilities due within one year from statement date including current payments on serial notes, mortgages, debentures, or other funded debts. This item also includes current reserves such as gross reserves for Federal income and excess profit taxes, reserves for contingencies set up for specific purposes, but does not include reserves for depreciation.

FIXED ASSETS—The sum of the cost value of land and the depreciated book values of buildings, leasehold improvements, fixtures, furniture, machinery, tools, and equipment.

FUNDED DEBT—Mortgages, bonds, debentures, gold notes, serial notes, or other obligations with maturity of more than one year from the statement date.

INVENTORY—The sum of raw material, material in process, and finished merchandise. It does not include supplies.

NET PROFITS—Profit after full depreciation on buildings, machinery, equipment, furniture, and other assets of a fixed nature; after reserves for Federal income and excess profit taxes; after reduction in the value of inventory to cost or market, whichever is lower, after charge-offs for bad debts; after miscellaneous reserves and adjustments; but before dividends or withdrawals.

NET SALES—The dollar volume of business transacted for 365 days net after deductions for returns, allowances, discounts from gross sales.

NET SALES TO INVENTORY—The quotient obtained by dividing the annual net sales by the statement inventory. This quotient does not represent the actual physical turnover, which would be determined by reducing the annual net sales to the cost of goods sold, and then dividing the resulting figure by the statement inventory.

NET WORKING CAPITAL—The excess of the current assets over the current debt.

TANGIBLE NET WORTH—The sum of all outstanding preferred or preference stocks (if any) and outstanding common stocks, surplus, and undivided profits, less any intangible items in the assets, such as good-will, trademarks, patents, copyrights, leaseholds, mailing list, treasury stock, organization expenses, and underwriting discounts and expenses.

TURNOVER OF TANGIBLE NET WORTH—The quotient obtained by dividing annual net sales by tangible net worth.

TURNOVER OF NET WORKING CAPITAL—The quotient obtained by dividing annual net sales by net working capital.

†Losses

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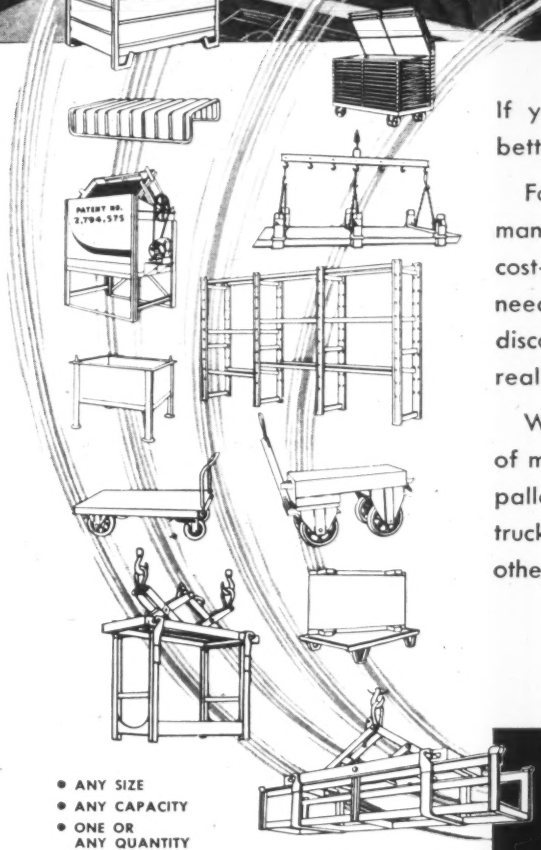

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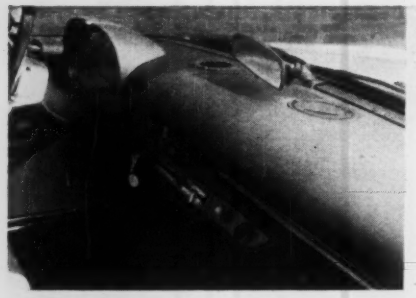

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WHEN PRESIDENTS DECIDE

continued from page 35

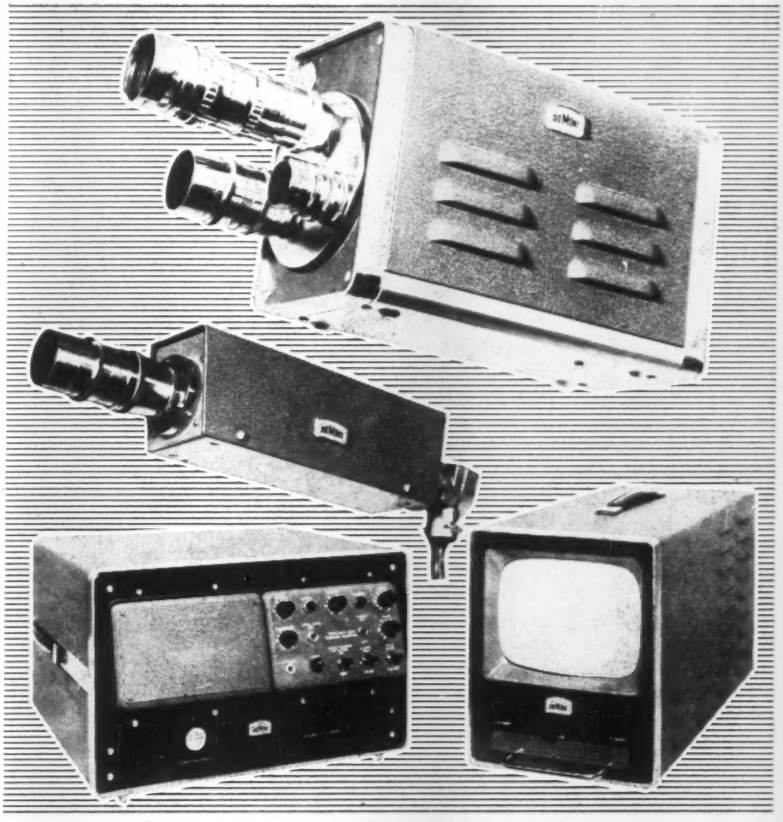
siders his major decision as president "the recommendation to the Board to make a huge investment in a new, complex field, against well entrenched competitors, with slight chance of black figures for five years." Another man describes a similar decision: "To commit the company to an all-out research, product, and personnel development and diversification program at the expense of immediate profits." Others say: "Stressing electronics—and spending to this end," "To aggressively expand our line of products through research effort and through acquisition," and "Acquisition of several properties that have proven very profitable. Each of these had been failures for the original owners."

Diversify or Not?

Closely related to expansion and acquisition have been diversification decisions. One man says his major decision as president has been "broadening the line, offering lower- and medium-priced equipment as well as high-priced." Another man's major decision has been setting "marketing policies for an entire new line of electronic equipment." There have been retrenchment decisions, too, such as "to drop a major line of products" and "closing the company's largest (but oldest) plant." These are decisions that roll with the currents of the economy, and some companies have had to switch products in midstream. The biggest decision of one company president has been to "change the nature of the age-old business."

Reflecting their own growth in an expanding economy, some companies' major decisions have been to divisionalize or to decentralize. This is the most commonly mentioned decision related to changes in organizational structure. In the words of one president, his biggest decision has been "reorganization of operating divisions and concentration of administrative functions by groups of product lines."

Of course, no major decision in any area is truly separable from the organic working of the company as a whole. And no matter how impersonal the decision itself or the decision area, it operates on and through people. In fact, one in six



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of the presidents mention people in connection with their most important decisions. One man's major decision was "the elimination of several principal executives who would not work in harmony with the organization." A second says his was "bringing in higher type of better-trained younger personnel in the executive area." Another man describes his chief decision as "an organization change in which younger men became Vice Presidents and heads of important departments."

In addition to these important decisions to develop, to re-align, and to strengthen and promote younger men sooner, other personnel decisions involving retirement and succession get frequent mention. One man says his major decision has been "insistence that ownership (controlling) accept my choice of successor." Another, echoing several similar comments, says his most important decision was "establishment of retirement of top executives at age 65." Reporting his experience with a major personnel decision, one man states more generally: "Installing the 'teamwork' structure instead of the 'big boss' system. Morale improvement has been enormous."

Another president names three decisions as of equal and related importance: "To sell one division; to cancel a merger negotiation; to retire or dismiss seven headquarters and subsidiaries executives." Among other major decisions mentioned by the panelists, here are a few: "Probably the closing of a plant and subsequent displacement of 2,000 employees"; "To become a public company"; "Improvement of balance sheet at expense of sales and costs"; "Decisions involving product quality"; "To make all other considerations secondary to sales"; "Institution of a five-year Sales, Profit, and Capital Expenditures Objective Plan"; and "To stay in business when all orders were canceled."

One president states a decision-making policy: "To make any decision on the basis of what is right in the long run in the balanced interest of the stockholders, employees, and myself, regardless of the individual opinions of any directors, executive, or consultant."

Decisions That Misfire

How often do company presidents' major decisions go wrong? The Panel

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Crane Co.
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Crucible Steel Company of America
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was asked: "Roughly, what percentage of the *major* decisions you have made since becoming president do you feel have missed the mark?" Some men, in answering this intensively subjective question, have undoubtedly been too hard on themselves. One-tenth of the men shy away from the question, and as many say they don't know. Another fifth of the group hedge on evaluating their decision error statistically. But of the six in ten men game enough to guess the percentage of their major decisions which have missed the mark, there is a margin of error ranging from 5 per cent for one man to 40 per cent for another. Of this group, nearly half say that up to one-fifth of their decisions have misfired.

A substantial number of the panelists say they are too new at their jobs to know, and others feel that while some minor decisions may have gone awry, none of the major ones have. "Modesty forbids," writes one man. Says another: "At the risk of sounding infallible, I do not believe I have made any erroneous *major* decision since I became President." "Impossible to estimate," says another. "I must be lucky, as relatively few failures come to mind."

HOW EFFECTIVE IS GROUP DECISION-MAKING?

WORKS WELL . . . . . SAY 23%

"Satisfactory as a general rule, and particularly when the group is well grounded in the problem under consideration."

"In our case—excellent."

"I find it best to get several views, and certainly a policy is better executed if those involved are in the decision."

"If group membership is qualified through experience and present knowledge, it is very satisfactory."

"It serves especially well where technical questions are involved. Valuable at times for broadening of officers."

"Believe in it firmly, so long as line responsibility is clearly recognized and maintained."

"Covers more angles of a problem, and therefore any decision is not so apt to adversely affect some managerial division."

"Excellent for training, for communications, for cross-pollinating."

HELPS SOME . . . . . SAY 44%

"Necessary for studies and recommendations, not for final decisions."

"Group discussion can be helpful and informative, but decisions should be reached by the individuals responsible."

"It can slow up decisions if not properly supervised but works well in diversified operation, as it easily covers all phases."

"Promotes teamwork and communications providing the democratic process is not carried too far."

"In policy matters I think group decision is important. On other matters we try to spell out areas of decision and insist that individuals in charge make such decisions."

"Helpful if unanimously arrived at, since this promotes harmony and the will to make the decision work."

"Requires care not to become anonymous and without accountability and responsibility."

"Valuable as a deterrent to too hasty action. Sometimes slows decisions too much."

"Desirable on certain phases of operations such as labor-pension-welfare policies or new products and research."

"Group decision-making cumbersome and frequently ineffective but it is our policy to hold the chairman responsible for the final decisions and the committee is used to help crystallize and formulate his judgment."

WORKS POORLY . . . SAY 27%

"Decisions should be made by an individual based upon conclusions arrived at through consultation with his close associates."

"Disapprove in company of our size. Group best qualified to raise and consider all aspects of problem and recommendation."

"I think it is an evasion of responsibility."

"Not much. Our group usually finds itself in agreement on the policy, but the president makes the decision. No voting to arrive at decision."

"In my experience it has never worked successfully—the decision-maker must keep well informed but act on his own."

"No good—simply passes the buck to others."

OTHERS 6%

"Do not generally like group decisions. Believe in consensus judgment in important matters without dilution of responsibility."

"Depends on personnel in group."

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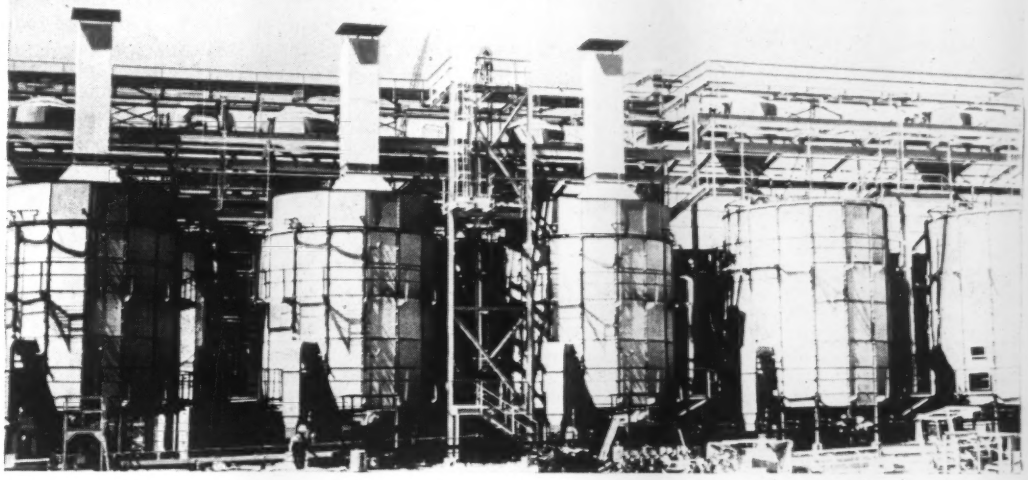

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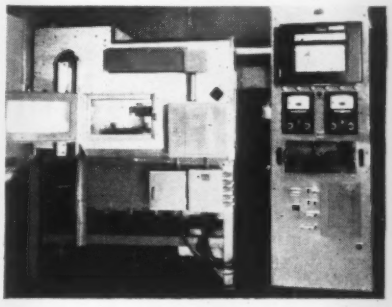

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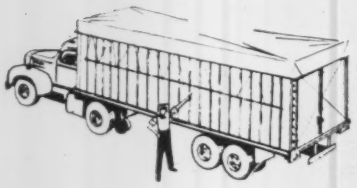

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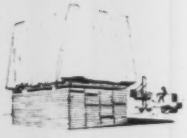

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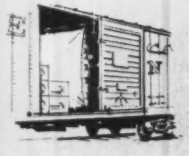

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Or, as another man puts his self-appraisal on major decisions: "10 per cent—just luck."

Three out of four company presidents say they share their decision-making with one or more internal committees. Most often mentioned, by the majority that use formal committees, are executive committees. In some companies, as many as six or more committees may aid the president. Types of committees mentioned include planning, policy, finance, stock options, purchasing, inventory, budget, pricing, salary, research, human relations and future products and demand.

In the companies (one-fourth of the total) that do not formally use committees in decision-making, consultation with associates and others concerned is a common pattern. The absence of committees, says one of these men, "does not mean that decisions are made without regard to opinions of associates." Or, as another man reports, "Decision-making usually follows a thorough discussion with key employees of the division of our business involved."

"Sharing responsibility for decisions is contrary to my ideas of proper organization and operation," says another president, concluding, "I like to *fix* responsibility, and you cannot do that with a committee." Or, in the words of another chief executive: "We disagree with the committee theory of operating a company, yet group participation in formulating a decision greatly aids the effective implementation."

Verdicts on Group Thinking

While three-fourths of the presidents regularly share their decision-making with committees, fewer than one out of four panelists think highly of group decision-making. Forty-four per cent of the men think committees are helpful in the fact-finding, appraisal, and consultive stages; 27 per cent are strongly opposed to committees; and a small minority are noncommittal.

One president calls group decision-making "horrible." "Too much bickering, too much compromise," says a second. Another man states his opposition more moderately: "Most decisions are arrived at through analysis of facts from more than one source, but group decisions, as such, I don't put any faith in."

Those presidents who favor decision-making by committee support their views with such comments as: "Essential to good teamwork. Business today is vastly more complicated than before 1932. No one knows enough to take responsibility of making all decisions alone."

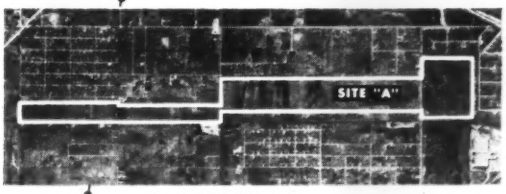
But the largest single group of presidents—more than four out of ten—feels that while committees help decision-making in the fact-finding and discussion stages, the final decision must be made by one man. One president feels that "strength of committee action lies in study, appraisal, and recommendations upon which decisions can be based." Another: "It is valuable for exchange of information and also where there are differences of opinion. Some one person, however, must still give the final decisions." One president considers that the "main value of a committee is in training people and through participation obtaining their greater support."

Closing In on the Decision

Sound decisions, of course, do not depend on gimmicks, and the actual techniques of decision may be peripheral to the creative process; yet to the man using them they may be necessary as well as useful. For this reason, company presidents were asked if they used any special aid, approach, or device to organize either their thoughts or the facts in reaching a major decision.

In various wordings, the most common answer to this question is a simple one: Get the facts. Often a president will also ask for the alternatives and a recommendation for action. This groundwork for decision-making may be done by committees, key individuals, or, in some cases, by outside consultants. "We have a special Planning Group I find most helpful," writes one president. "Over-all problems and projects that transcend divisional lines have a way of being slighted in the rush of divisional operations. This group, reporting directly to the President, materially improves that situation." Another company uses "a Task Force drawn from the areas of the corporation which we feel are most qualified to deal with the matter at hand to present the facts on which decisions are based."

Other presidents approach their decision-weighing with more personal or specific aids. To appraise



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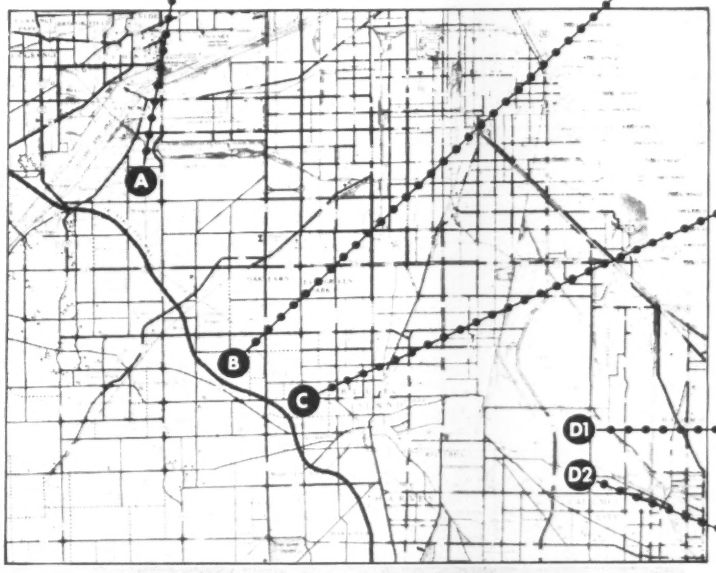

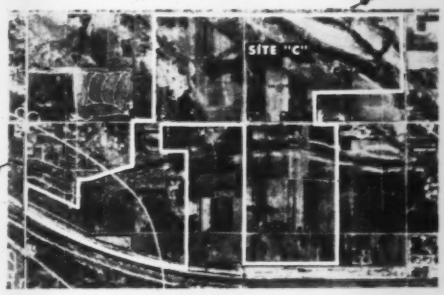

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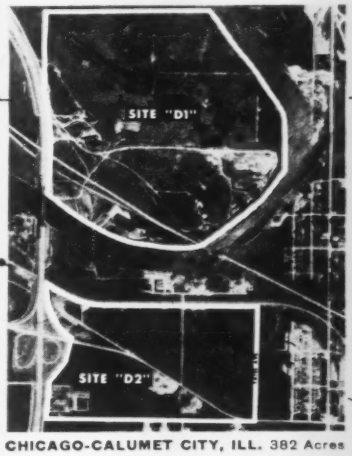

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the pros and cons of each alternative, one executive says: "I attempt to estimate numerical values or weights to assign to each of the major factors, and then pick the combination giving the largest numerical weight." Another president reports: "Complete operating budgets based on sales forecast—one year in advance—help with many operating decisions." Several find it helpful to put their thinking on paper. One of these men says he "writes out in longhand the pros and cons of all the factors involved in a question. In the course of this process I usually arrive at a conclusion, particularly if I let it 'soak' for a while." Another man says: "I like to get the problem and the facts down on paper. I find it conducive to an objective and more rapid decision."

Toolkits for Decision

Some presidents mention the use of charts as particularly helpful. One president prescribes this combination: "Top-flight staff specialists—outside expert consultants—plenty of travel and personal contact—better communications." "Decisions often make themselves," says one man, when he asks questions based on a previously prepared outline and data. One president says he uses Reilly's "Twelve Rules of Straight Thinking" (an application of scientific method to the decision process), and some men find it helpful to check the new decision against their own or others' experience in similar situations. As one of these presidents describes his system: "Effort is made to have a memorandum for the file covering pros and cons of important decisions as a source of future reference and 'hindsight' analysis."

Another man's technique is "just common sense," and several presidents wistfully say, "I wish I knew a formula to properly weigh alternatives." "Just a lot of time" helps one man make decisions. And another president says: "Occasionally, we employ a management consultant organization to study and analyze some particular phase of our operations with resultant recommendations as to improved procedure."

Asked how often they have called upon outside consultants *during the past year* for help in reaching major decisions, one third of the presidents report not at all; one in seven, once; the same number, twice; and one in

ten men, from three to twenty times. Another tenth of the group describe their use of outside consultants as "frequent," and a somewhat smaller number as "occasional." According to the presidents who use them, consultants help on decisions related to organizational structure, plant location, product research, and acquisition. Other matters on which consultants were used last year include personnel problems, executive compensation, and taxes.

How Important Is Hunch?

Three out of ten company presidents say flatly that hunch plays no part in their decision-making, and another four out of ten claim it hardly enters in at all. Precisely three presidents say that hunch strongly influences their major decisions.

Some men redefine the question before answering it: "If by 'hunch' you mean making a decision that is based on experience or belief rather than on specific facts, then the answer is *yes*. I make many decisions where the available facts do not indicate a clear road to follow." Others say: "All business judgment is partly intuitive." "I try to decide based on facts and evaluation of the group making the recommendation, but have made mistakes by not following occasional hunches. Sometimes one instinctively 'feels' something is wrong without basic facts, and probing thereafter pays off." "If 'hunch' means some extrasensory perception or mystic flash, I think it is pure hokum. If it means an accumulated abundance of vague impressions and facts, abruptly crystallized (even though semi-subconsciously) into a single *strong* conception of a solution to the problem at hand—then quite frequently."

According to the presidents, personal bias plays as little role in their decision-making as hunch. Nearly six out of ten men claim that no personal bias ever influences the decisions they make, but another three in ten are aware of occasional bias in their decisions. Here are some of the biases named by this group:

"Experts." "Prefer 'buy' rather than 'make.'" "Too sales-minded." "Tradition." "Dislike for negative and defeated people." "My historical opinion of the judgment and emotionalism of subordinates' opinions on the matter." Or, as one of several other presidents puts it: "The record

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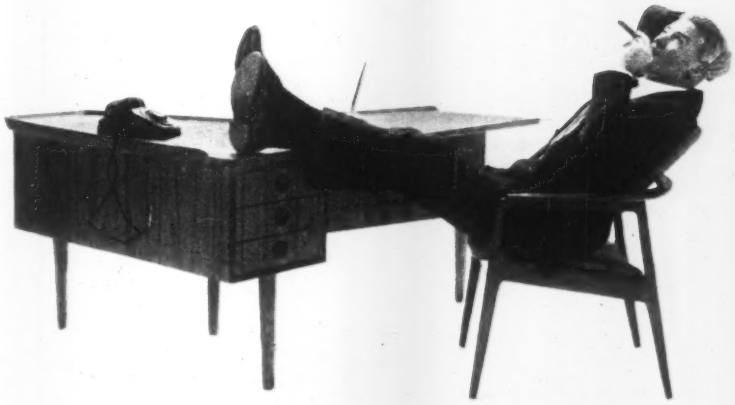

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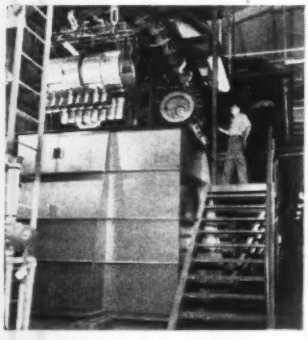

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of those recommending is influencing." "I do not like slow or lazy people and may therefore fail to act objectively where one is concerned." "Against self-salesmen." "Tend to give an executive the benefit of the doubt, which sometimes means an ineffective person stays too long on a job."

The Human Factors

A company president's decision strategy may be strengthened or handicapped by the kind of a man he is. To find out what part this human element plays in top management decision-making, DR&MI asked the panelists: "What do you consider your greatest strength or personal asset in decision-making? Your chief handicap?"

Analytic power and self-confidence in appraising the facts correctly are the factors most commonly mentioned by the presidents. As one man puts it, "hang on until the picture gets clear." Another man trusts his "ability to estimate the worth of people and projects." A third says: "An unbiased, flexible approach to getting the facts and a complete consideration for the individuals involved." Their next most important strength, in the presidents' own view, is their willingness to accept responsibility. This is closely related to their awareness of their subordinates' confidence in their judgment and fairness. Several presidents attribute the soundness of their decisions to integrity, to "honesty of purpose" and to "adherence to basic principles and policy." Decisiveness and objectivity are also often mentioned: "A willingness to make a clean decision without regard to personal consequences," or an "unprejudiced, open mind."

Experience and knowledge of the business are referred to by many men, and a few mention training in such areas as engineering, accounting, and law. Flexibility and the broad view also count: "Willingness to consider long-range consequences and to review and if necessary reverse decisions as conditions change." A significant number of men mention their ability to lead group thinking, to "listen and consult," to "probe out judgments from specialists within the company," to ask the right questions of the right people. As one man puts it: "The most intimate acquaintance with the

capabilities of almost every senior superior who is in a position to recommend major company action."

Finally, quick and courageous facing-up to the necessity of decision is often mentioned.

On the other side of the picture, impatience, haste, dislike of detail, and perfectionism often hamper decision-making. "Impatience and empathy," says one man; another, "I don't like to dig into details." Not getting "enough information, soon enough" handicaps many. So do impulsiveness, the fear of being wrong, lack of time, over-deliberateness, and, often, procrastination. As one man puts it: "Command positions in the Navy during World War II taught me the responsibility and loneliness of command. I believe I am ultimately responsible for whatever happens, good or bad, within the company, and I accept that responsibility. My chief handicap is usually not forcing subordinates to make decisions which we all know must be made—in other words, procrastination."

Background Gaps

Several men are disturbed by "lack of sufficient technical background to thoroughly understand the more sophisticated products being planned for the future." One man mentions "lack of sufficient experience in the financial world and my naivete in 'wheeling and dealing.'" Several feel strongly their "inability to judge the future growth potential in some areas."

But sensitivity to the feelings of others is one of the commonest human burdens to presidents when they decide. Among such human concerns that presidents consider handicaps in their decision-making are "over-concern about hurting people," "hesitancy to hurt others," and "personal loyalties." One president, though, says he is "blissfully unaware" of any personal handicap in the business decisions he makes.

Another personal question was asked the presidents: "Before making major decisions, do you often discuss them with your wife?" On the basis of the replies, top management tends to confine business discussion to the office. Nearly four-fifths of the men rarely talk over their executive decision worries with their wives; almost one-fifth do. One man does "sometimes," and an-

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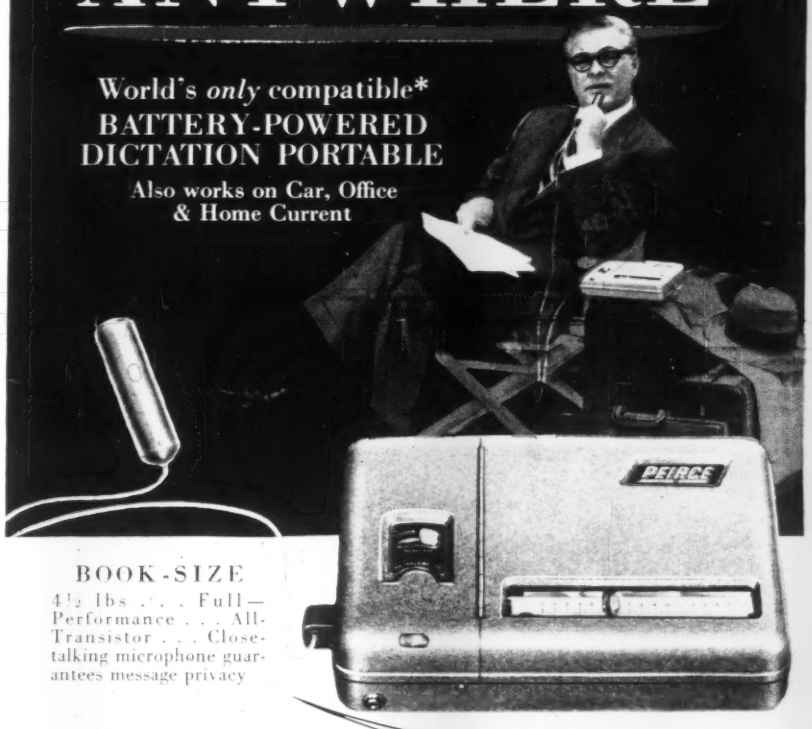

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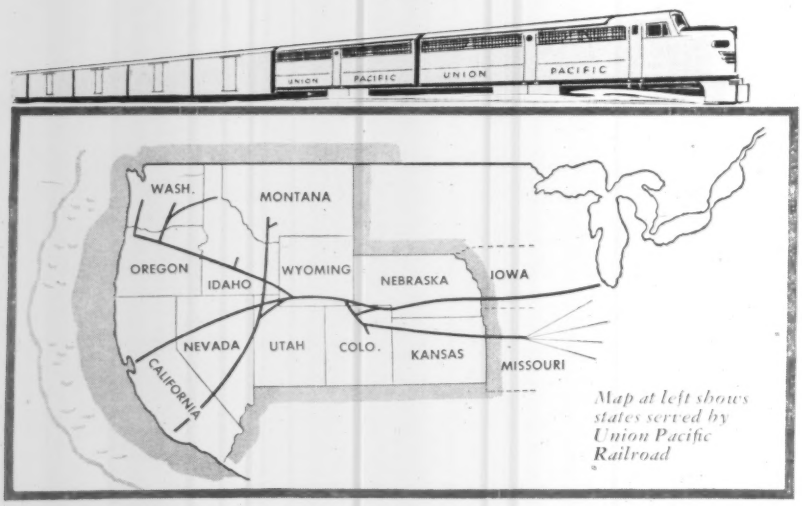

Map at left shows states served by Union Pacific Railroad

other "seldom" asks for her advice.

While presidents are busy planning and deciding objectives that will guide their companies into the future, do they feel any regrets about past decisions in their business lives?

While more than a third pass the question by and a tenth say they don't know, one fifth of the panelists say they regret no past decisions in their business lives. "It will sound boastful, but I do not recall any," says one man; or, in the words of another president: "Many have proved wrong, but I have not regretted the decisions based on the facts at hand."

Pangs of Hindsight

The remaining third of the Panel still recall some decisions with regret. The most frequent of these concern plant or product plans. One man regrets the "start of a new plant"; another, failing "to acquire a company in 1949—since successful." Another man regrets "buying a supplier" and one is sorry he contracted "to buy $1 million worth of products closely related to our own line to 'round out' our line. We dropped a bundle on the deal." One president finds cold comfort in the "elimination of a product of subsequent great importance." Or another: "Not diversifying when chances were best." "Acquisition of a dud when I should have known better," reports one president, and another: "Certain acquisitions which were not thoroughly explored before consummation."

Tinged with as much regret are many personnel decisions. Writes one man: "Picking wrong man for a job"; another, "Failure to select properly qualified executives in early years of business." Says one president: "The method employed in discharging a man thirty years ago." One man regrets having given "preference to chemists and engineers in selecting executives." And finally, one panelist regrets "not facing up to the inability of subordinates to get the job done. Not following this credo: 'A good leader cuts off the incompetent promptly, cleanly, and definitely; for good intentions cannot take the place of lack of ability.'"

Three men regret that they did not go into business for themselves, and two men regret not having completed their education. Other regrets include the following: "Staying with a run-of-the-mine company for years

simply because I had an excellent position"; "Underestimating market immediately following World War II"; "Not taking prompt steps to properly price our product"; and "Carrying loyalty beyond all reasonable bounds at a personal sacrifice."

How Presidents Decide

No one formula can guarantee sound decision-making. Articles and books about decision-making have suggested formulas comprising as few as three or as many as a dozen steps. Peter Drucker breaks the process into five phases: "Defining the problem; analyzing the problem; developing alternate solutions; deciding upon the best solution; converting the decision into effective action." To throw some further light on the practice of top-level decision-making (as distinct from theory), DR&MI's panelists were asked: "What is your prescription for arriving at the best decision on a complex, difficult problem?"

What the presidents say of their own decision-making confirms what others have written of it, but there is one notable difference of emphasis. A significant group of the panelists mention the importance of pausing as long as possible between the appraisal of the facts and the final decision: "Wait a few days or weeks, if possible"; "plenty of time"; "allow time for the decision to clarify itself"; "sleep on it"; "season it for a few days, if time permits"; "don't be stampeded into making a quick decision." In more detail, one man writes: "I try to follow a pattern of thoroughly studying and analyzing the problem over an extended period of time. I let it 'soak,' coming back to it time and again. The greatest danger to avoid is being hasty due to urgency or pressure from other people. I seldom regret losing any so-called 'opportunities requiring immediate action.' I have often regretted a decision made in haste. In following this pattern, some pretty sound decisions have eventually come to the top."

The importance of an incubation period for major decisions has long been recognized; it was the Greek dramatist Sophocles who said, "Swift decisions are unsure." But what happens in the subconscious, and how it happens, is still a mystery. In any event, company presidents know that this waiting period improves

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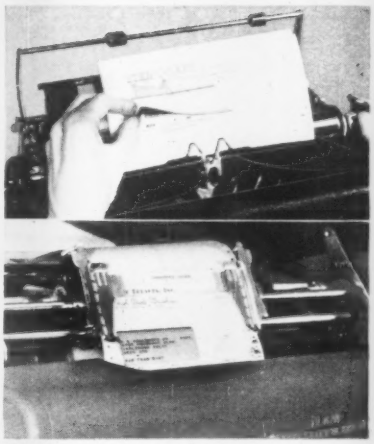

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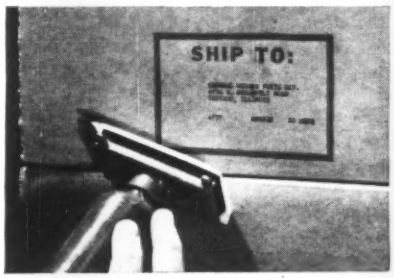

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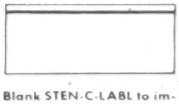

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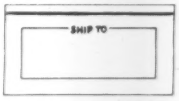

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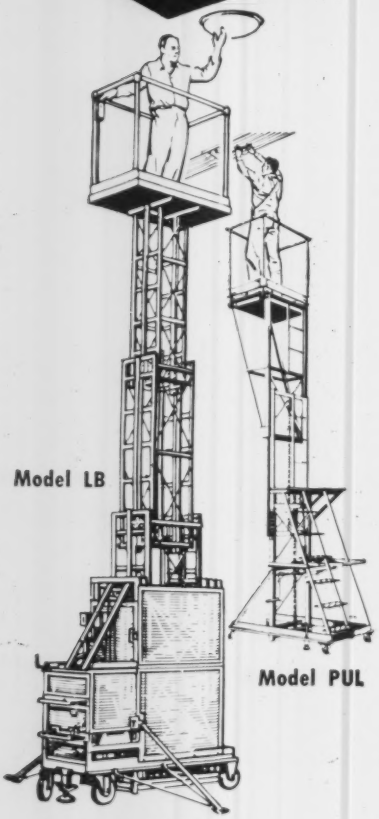

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ECONOMY ENGINEERING

the quality of their decision-making.

Otherwise, presidents' decision-making formulas vary little. Unanimously, the presidents say the first step is to get the facts. "If you have *all* the facts, a complex decision is never difficult." What makes deciding difficult is the predictive, forecasting element and the usual impossibility of getting *all* the facts, under the dual pressures of time and money.

One president sums up the basic steps in executive decision-making typically:

"1. Garner all available facts. 2. Test the accuracy of these facts and obtain the judgment of others as to a course of action they might choose. 3. If it involves a question of justice or ethics, decide the RIGHT course of action—if it involves risk, evaluate the probability of success or failure, weighing the potential gain against the potential loss in either case. 4. Make the decision and make sure the organization is sufficiently in accord with it so that it will become effective. For instance, if the decision involves going into a new product line, the following questions might be asked as an aid to making such decisions: (a) Will it broaden our markets, increase our profits, or stabilize our production? (b) Is it something we can do *well;* that is, engineering-, manufacturing-, marketing-wise? (c) Will it develop and enlarge the opportunities of the people involved? (d) Is this a move in a direction in which we want to permanently continue? (e) Are the benefits worth the risk involved? (f) Will the decision to proceed be sufficiently concurred in by others so that there will be sufficiently enthusiastic follow-through to insure success?"

Decisions for 1958

The biggest decisions in the offing for 1958, as described by three-fourths of the Panel who can now foresee them, involve expansion, capital expenditures, and diversification.

In the words of the presidents themselves, here are some of next year's important decisions: "Setting priority on uses of capital"; "Timing of expansion programs in order to keep income and outgo in balance"; "Where to draw the line between long-range plans and directions and short-term earnings"; "Whether to continue expansion or to 'consolidate' and take a more conservative line of action"; "Pace of expansion"; "Whether to stay in a major product line that has been and is currently very profitable, but long-term future is uncertain"; "We are investigating a diversification opportunity, and must decide whether to embark on a program which could either bring great future benefits—or prove to be a waste of money, time, and talent."

Building programs, plant expansion, merger, acquisition, and financing decisions loom large next year, and several men expect to be concerned with organization decisions: "Whether to aggressively push certain phases of divisionalization from an organization standpoint" and "liquidation or continuation of certain operating divisions." Long-range planning will be among next year's major decisions: "Setting our five-year objectives in expansion, sales, and profits" and "restudy of company's long-term objectives." And a number of men will be concerned with selecting key executives, including, in several instances, their own successors.

These are some of the decisions ahead. As he faces 1958, each president, in some sense, resembles Columbus beginning his first voyage: guided by a sound conviction based on partial data, he sets his course to navigate across uncertainty toward an unknown world. END

The Meaning of the Sputnik

What is the long-range significance of the Soviet satellite for American business? Is Russia really beginning to pull ahead of the U. S. on the technological and industrial front? In the December issue of DR& MI, a leading expert on the Soviet Union clears away some of the current confusion and takes a searching look at . . . .

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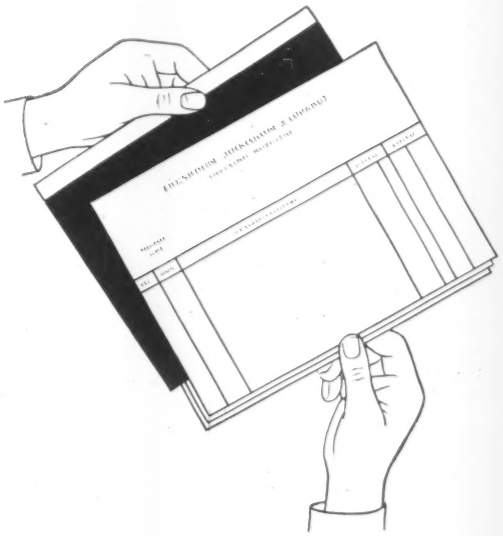

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WYANDOTTE CHEMICALS

How an independent with an assist from

helps keep industry

PHOTO BY BELLG

Board Chairman Rexford S. Blazer (seated) and President Everett F. Wells of Ashland Oil & Refining Company. "When we pick suppliers," says Board Chairman Blazer, "we do so on the basis of their reputation for quality products, dependable delivery, and scope of technical service. We're glad to have Wyandotte on our team." In background: One of Ashland's towboats which transport crude oil in tank barges, via inland waterways, to the company's refineries where it's turned into finished products.

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NESTLED near the banks of the busy Ohio River in Ashland, Kentucky, is the home office of one of the most dynamic independent oil companies in the U.S. — Ashland Oil & Refining Company. Controlling a sprawling network of refineries, pipelines, and products terminals, Ashland Oil serves industry and consumers in the heart of industrial America with an ever-growing list of products, from asphalt to xylene.

A famous name in their product group is Valvoline* Motor Oil. Familiar to motorists throughout the world in its distinctive package, it's reputed to be the first and oldest (90 yrs.) brand-name oil. Big news from Ashland today is that Valvoline now has a companion product: Valvoline Anti-freeze — sure to win quick acceptance in the booming "winterizing" market.

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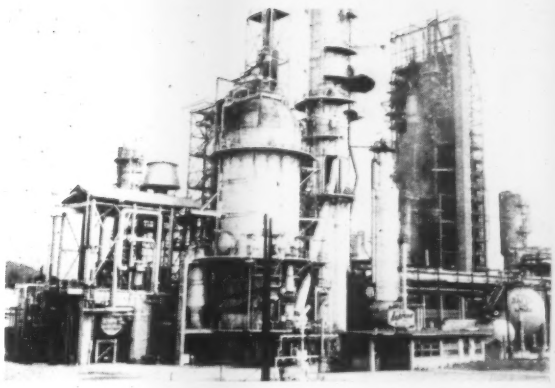
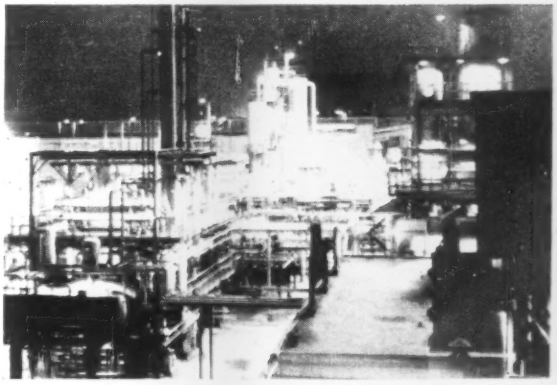


2 **Ashland's** three largest refineries have a combined capacity of 140,000 barrels per day; separate crude oil into various petroleum products. Chemicals from Wyandotte are used to make many products for the petroleum and automobile industries, from tires to hydraulic fluids and radiator cleaners.

3 **Famous name** in motor oil is joined by companion product, Valvoline permanent-type antifreeze. Ashland produces a variety of products for the transportation industry, such as jet fuel, diesel fuel oil. Wyandotte's line is also diversified; includes glycols, bicarb, soda ash, and chlorine, to list just a few.



4 **Wyandotte's** modern glycol plant. With these complete facilities and our fully equipped research center, we can help you solve many product or processing problems. If you have a chemical or processing problem, why not call on Wyandotte? Write to us, today, giving as much detail as possible.

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Facts to consider when you're buying

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Briefly, Iridite is the tradename for a specialized line of chromate conversion finishes. They are generally applied by dip, some by brush or spray, at or near room temperature, with automatic equipment or manual finishing facilities. During application, a chemical reaction occurs that produces a thin (.00002″ max.) gel-like, complex chromate film of a nonporous nature on the surface of the metal. This film is an integral part of the metal itself, thus cannot flake, chip or peel. No special equipment, exhaust systems or specially trained personnel are required.

If your company is manufacturing or buying parts or complete assemblies made from or plated with any of the more common non-ferrous metals—zinc, cadmium, aluminum, magnesium, silver, copper, brass or bronze—you've probably already run up against the question of finishing these surfaces with a chromate conversion coating. These coatings are used to protect against corrosion, or to provide a base for paint or to provide a decorative finish for sales appeal or shelf life. Since chromate conversion coatings represent a relatively new means of obtaining these finishes, this digest of facts to consider may be of value to you.

1. THE COATINGS THEMSELVES. There are many brands on the market. All are similar in many ways. Each, of course, offers its own specific advantages and these may relate to operating techniques, performance under actual use conditions, cost, availability, etc. Naturally, you'll want to choose a coating that is widely known and accepted under both military and civilian specifications.

2. THE COMPANY BEHIND THE PRODUCT. Is it a reliable, established organization? Does it offer experienced technical service, both from the field-engineering organization as well as the home office and laboratories? The man who sells and services your installation should be thoroughly familiar with not only chromate conversion coatings and their applications, but also with the characteristics and performance of related finishing operations such as precleaning, electroplating, painting, etc. This is most important since all steps of the finishing cycle must be functioning properly for the satisfactory performance of the ultimate finish produced.

3. AVAILABILITY OF THE PRODUCT. Ideally, of course, the material should be readily available to you from nearby warehouses to avoid time loss in long distance shipping and to provide emergency service, should the need arise.

4. COST. Naturally, the initial price of the material is important to you. However, just as you consider ultimate cost when you are buying mechanical equipment, ultimate cost must be considered for these finishing chemicals. So, it will pay you to investigate consumption costs, labor costs and the other factors which go into the determination of ultimate cost. Further, cost alone gives no indication of product performance, so careful attention must be given to the purpose the finish must serve and the value that finish will add to your product.

5. FACILITIES FOR RESEARCH AND DEVELOPMENT. Perhaps the existing types of chromate conversion coatings do not include a compound that will accomplish exactly what you wish. Then, it is important to deal with a supplier who has adequate research and development facilities available to work with you to produce a material to meet your needs. Naturally, such a project is seldom completed overnight. But, with complete cooperation and confidence from both you and your supplier, chances are a satisfactory program can be completed.

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Executive BOOKSHELF

Sales do's and don'ts

SUCCESSFUL SELLING STRATEGIES: HOW TO CLIMB THE LADDER TO SALES SUCCESS *by Charles L. Lapp. McGraw-Hill Book Company, Inc., 330 West 42nd St., New York 36, 368 pages, $4.95.*

Over a period of ten years, Dr. Lapp, who is professor of marketing at Washington University and a sales consultant, has been conducting formal and informal surveys of buyers' reactions to salesmen. This book reports on his findings and the lessons to be drawn from them.

It seems hard to believe that experienced salesmen would be guilty of picking their teeth, blowing smoke in buyers' faces, banging doors, or interrupting when the prospect is talking to someone else, but apparently some of them do need to be cautioned on these matters. Other salesmen actually insult the buyer by such phrases as, "You don't know what you are talking about."

These are just a few of the mannerisms and phrases that, in the view of the buyers, have helped to kill sales. The book lists hundreds of them, reported by several thousand buyers.

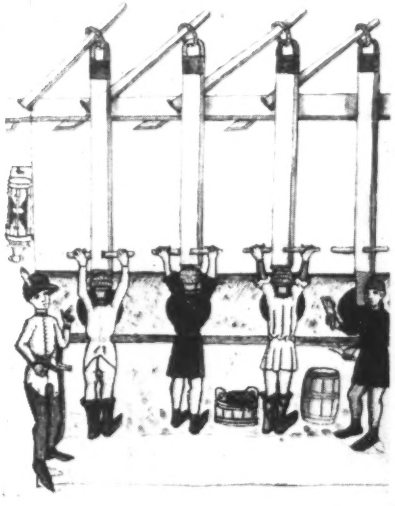
It is not, however, wholly or even largely, a negative book. Also included are innumerable pointers on what the salesman should do and say, and in many cases actual phraseology is suggested.

From ancient Egypt on

A HISTORY OF INDUSTRIAL CHEMISTRY *by F. Sherwood Taylor. Abelard-Schuman Inc., 404 Fourth Ave., New York 16, N.Y., 483 pages, $7.50.*

The history of chemistry and the history of industrial chemistry are two different stories, for only in comparatively recent times has industry drawn on the pure science for practical developments. The early industrial chemists—the men who first learned how to make glass, pigments, combustibles, and other substances for common use—were artisans, not scientists. They did the things that chance discoveries had shown would work, but they neither know nor cared why one thing worked better than another. Theory was left strictly to the philosophers and the alchemists.

This book traces the history of industrial chemistry from the earli-



A History of Industrial Chemistry

From gunpowder to plutonium. Monotonous factory work existed long before the Industrial Revolution, as the scene in a medieval gunpowder mill (left) shows. The hourglass indicates that timing of operations was not unknown. Right: a British plutonium plant.

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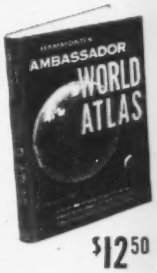

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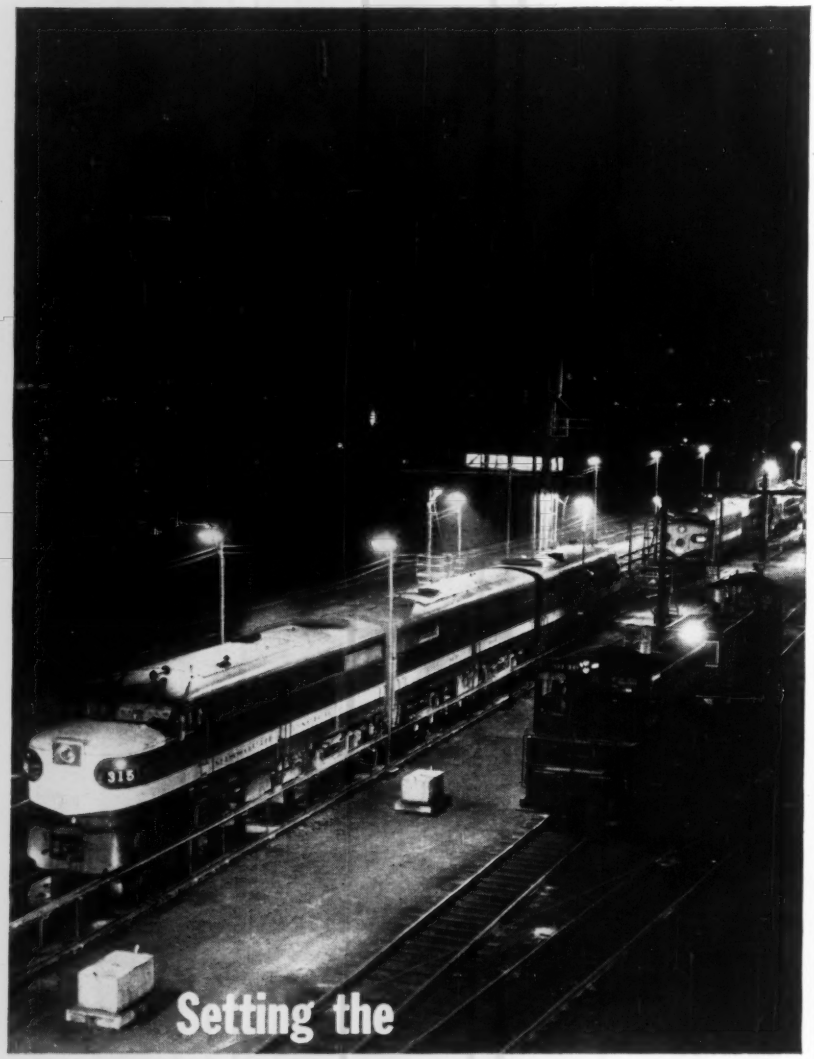

Setting the

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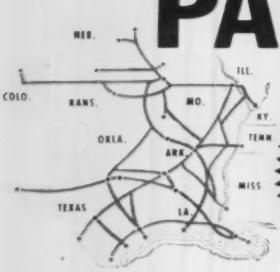

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est days, through the fusion of theory and practice, down to modern times. It is an interesting story, in itself and because of the light it throws on the daily life of past ages. For example, we learn that detergents antedated soap; in fact, they were used in ancient Egypt. Chimneys were found only in the houses of the wealthy until the 16th century; the poorer classes simply let the smoke escape through the roof. This limited the use of coal, because coal smoke was "very offensive to the otherwise insensitive medieval nose and was thought to be poisonous."

Many interesting illustrations, a number reproduced from old drawings, appear throughout the book.

Benefits today and tomorrow

EMPLOYEE BENEFIT PROGRAMS: AN OUTLINE *by Michael T. Wermel and Geraldine M. Beideman. Industrial Relations Section, California Institute of Technology, Pasadena, Cal., 32 pages (paper covers), $1.*

PROBABLE FUTURE TRENDS IN HEALTH AND WELFARE PROGRAM EXPENDITURES *by Michael T. Wermel. Industrial Relations Section, California Institute of Technology, Pasadena, Cal., 19 pages (paper covers), $1.*

The first of these pamphlets is basically a checklist of possible fringe benefits, designed as an aid to discussion or a possible aid in inventorying and integrating a company program.

The second is an examination of trends in the health and welfare benefit field. Dollar expenditures for health and welfare benefits, Mr. Wermel says, are likely to rise in the future, but the proportion of total compensation spent on the programs will probably decline. He foresees extension of major medical coverage and possible removal of the coinsurance feature and the deductibles, added emphasis on treatment for mental illness, and the addition of prepaid dental care.

For the market researcher

A THEORY OF THE CONSUMPTION FUNCTION *by Milton Friedman. National Bureau of Economic Research, No. 63, General Series. Princeton University Press, Princeton, N.J., 259 pages, $4.75.*

Consumer income statistics are the foundation of market research, but if Dr. Friedman's theory is correct the published figures need considerable refinement if they are to be used as an index of probable spending. The income a family regards as

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In Your Constant Search for LOWER COSTS

Are You Overlooking DOORS?

Whether seldom used or in constant action, doors can affect other plant costs in ways that may escape management's closest scrutiny.

For example, note these cost-cutting features of the door with the interlocking steel slats *(originated by Kinnear)*.

They coil above the opening! Whether opened, closed, or in action, Kinnear Rolling Doors waste no usable space anywhere.

They clear the entire doorway! When open, Kinnear Rolling Doors stay out of the way, out of reach of damage by wind or vehicles.

They save time and labor! Kinnear's coiling upward action, the key to highest operating efficiency, is also ideal for *motorized* door convenience — with push-button operation, remote switches, and other controls that meet today's trend to complete automation.

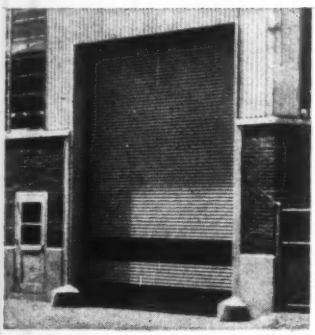
They cut heating, cooling costs. Kinnear Rolling Doors *(especially when motor operated)* promote prompt closing that cuts loss of heat in winter and cooled air in summer.

They give extra protection. Kinnear's all-metal curtain assures added protection against fire, wind, weather, vandalism.

They last longer! Records show that many Kinnear Doors have been in continuous daily use *40 years or more.*

Extra-heavy galvanizing! 1.25 ounces of pure zinc per square foot of metal, ASTM Standards, give the Kinnear curtain highest resistance to corrosion.

Built to fit any opening, with motor or manual control, Kinnear Rolling Doors assure the right answer to your needs. Write today for details!



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Kinnear STEEL Rolling Doors

KINNEAR ROLLING DOORS
Saving Ways in Doorways

The KINNEAR Mfg. Co. *Offices and Agents in All Principal Cities*

Factories: 1500-20 Fields Ave., Columbus 16, Ohio; 1742 Yosemite Ave., San Francisco 24, Calif.

"disposable," he says, is not the total income after taxes, but what it regards as its "permanent income."

If permanent income is used as the base, he believes, the widely held theory that people with lower incomes save a smaller percentage of their total receipts than those with higher incomes is no longer valid. City people in business for themselves save 15 to 20 per cent of their income, as against 5 per cent for wage earners, but this is accounted for by the fact that the former are less certain of their income prospects, and perhaps partly because they can earn a higher rate of return on their savings. The percentage saved by U.S. consumers as a whole has averaged 12 per cent over the last 50 years.

Executive, improve thyself

THE EFFICIENT EXECUTIVE *by Auren Uris. McGraw-Hill Book Company, Inc., 330 West 42nd St., New York 36, N.Y., 319 pages, $4.95.*

This book is directed not at those who are responsible for selecting and training executives, but at the executives themselves. The two chapters that have appeared in DR&MI "How to Have Time for Everything," (August 1957) and "Let's Throw the Rulebook Out the Window" (November 1956) are typical of Mr. Uris' approach. He advocates common sense and flexibility in the handling of the executive job, and offers a number of novel suggestions that most executives can put to good use. Being a realist, he recognizes that it is not enough for an executive merely to be efficient. In the modern large-scale organization a man who is doing a good job may easily escape notice unless he makes positive efforts to bring his record to the attention of the higher-ups. Hence Mr. Uris includes a chapter on "Making Yourself Known in Your Organization," which contains a good deal of practical advice on ways in which the executive may publicize himself and make the best of his assets.

In his concluding chapter, he writes: "Development of professional standards [for management] is on the verge of beginning. . . Approach the problem of your training as any professional does. Realize that your executive skills must lie not in spontaneous performance, but, as is true of the physician, by excelling in the techniques of your profession."

How to make a Beeline

to a honey of a Plant Site

(a suggestion to men in industry)

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The first step in making a beeline to a good industrial location is to know where the site is. If you don't have this information to your satisfaction, let the Norfolk and Western help you.

N&W plant location specialists have complete, up-to-date files on numerous excellent sites for *any* plant — regardless of size. They understand the problems of manufacture and distribution with respect to location. There is no obligation, and if you're seeking a good site they will go to work for and with you *quietly* and *promptly*. What they show you may be the way to make a beeline to a honey of a plant site.

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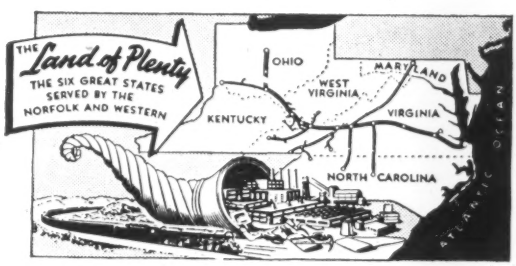
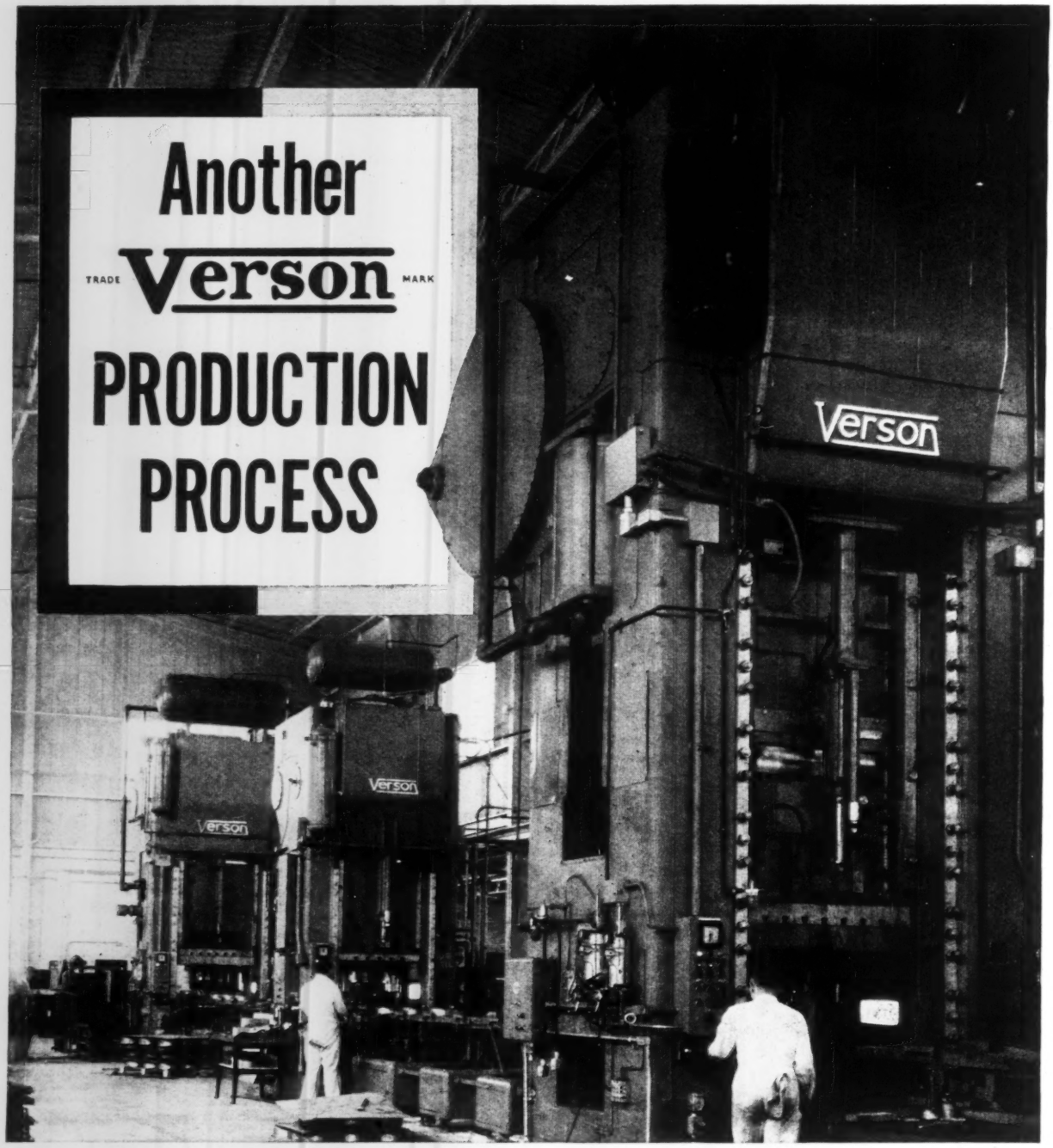
Roanoke, Virginia



Norfolk and Western RAILWAY



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Here is a good example of what Verson engineering can do in automated press lines . . . and this is no theoretical concept . . . it is a tried and proven production process which has been in operation for one year.

Three Verson Eccentric Presses (1500, 200 and 600 tons respectively from front to rear in above photograph) are synchronized with automatic transfer and feeding equipment. The part produced is an automotive transmission drive housing.

As a manufacturer of both Transmat and automated press line processes and related tooling, Verson is well qualified to assist you in high production automatic stamping problems. For specific recommendations send an outline of your requirements. 163

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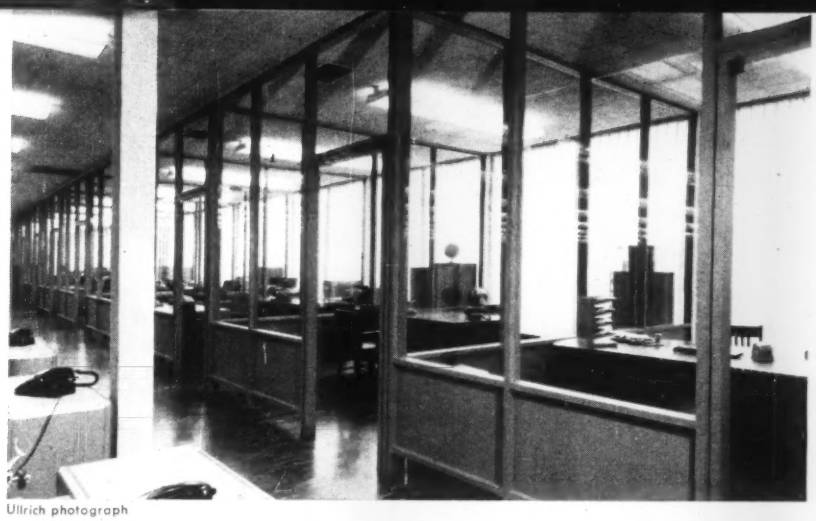


Ullrich photograph

WHAT ARE YOU PAYING FOR OFFICE SPACE?

AS THE RATIO of office workers to production workers keeps on rising, most companies are beginning to require more and more office space. New machines may slow down the rate of increase or even reverse the trend for some companies. But machines, too, take up space on office floors—sometimes a great deal of it.

In consequence, office rental costs are becoming an increasingly important factor in total costs. This is pointed up in a new survey by the National Association of Building Owners and Managers, which has produced some fresh and interesting figures on the high cost of taking up space. Covering 627 buildings—about 86 million square feet of office space in 104 cities—it shows a wide variation among different sections of the country.

The table shows the average rental costs in 29 of the cities, compiled from a sample of 465 buildings. Providence has the lowest average—$2.81 per square foot. Milwaukee ($2.86) and St. Louis ($2.96) are next on the scale. Costs top $3 in all the other 26 cities.

Highest rates were found in Pittsburgh ($4.68) and Philadelphia ($4.24). In Dallas and Tulsa rates were slightly lower ($4.02) and in New York City the rate was an even $4. In the remaining 21 cities, costs per square foot were somewhere between $3 and $4.

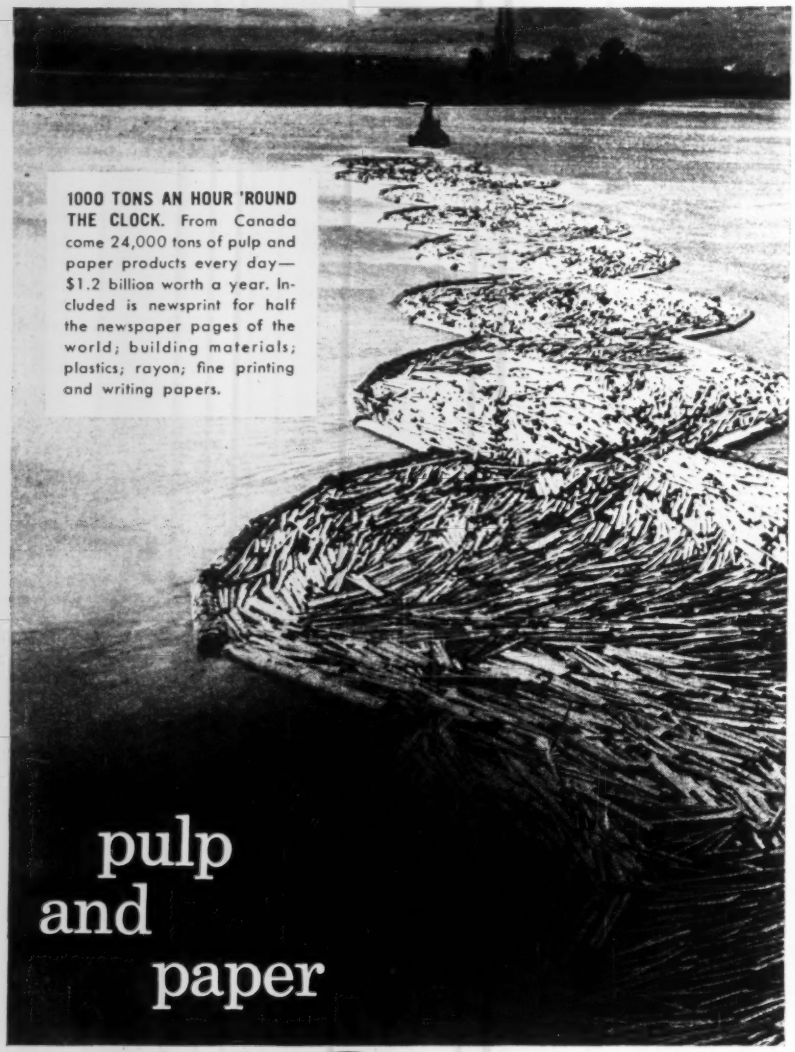
You can use the list to:

- Compare your own office rental costs with the average for your city (remembering, of course, that new buildings with air conditioning and other features may be expected to rent at levels noticeably above the averages shown).
- Calculate the rental costs that could result from moving or expanding your offices.

—T.K.

OFFICE RENTAL RATES

City	No. of Bldgs. Covered	Annual Rental (per sq. ft.)
Atlanta	13	$3.25
Baltimore	6	3.26
Chicago	41	3.78
Cincinnati	7	3.35
Cleveland	20	3.33
Dallas	8	4.02
Denver	26	3.44
Des Moines	7	3.03
Detroit	16	3.36
Houston	7	3.62
Indianapolis	13	3.34
Kansas City, Mo.	8	2.87
Los Angeles	33	3.49
Louisville	4	3.22
Miami	6	3.32
Milwaukee	7	2.86
Minneapolis	13	3.27
New York	7	4.00
Oklahoma City	12	3.49
Omaha	20	3.02
Philadelphia	29	4.24
Pittsburgh	10	4.68
Portland, Ore.	10	3.13
Providence	6	2.81
St. Louis	10	2.96
San Francisco	90	3.90
Seattle	17	3.15
Tulsa	5	4.02
Washington	14	3.69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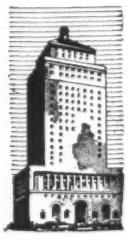


YOUR MARKETING DOLLAR

continued from page 43

base. When you finish this exercise in arithmetic, you stand on the threshold of important gains in marketing effectiveness. Why? Because the low-performance territories revealed by this analysis represent "sitting duck" opportunities for expansion of volume and profit—especially profit. It is the range of variation in sales performance that spells "opportunity" in blazing letters.

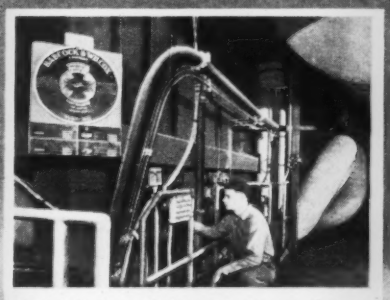
Broad Spread is Normal

The weakest territory is likely to have a performance-index figure of 50 or lower. That means that volume from that territory, potential considered, is only half as high as it would be if you were doing a just-average job there. The territory with the highest level of sales performance is likely to be at the 150 mark or higher. Now consider the range between the highest and lowest territories, in terms of sales per unit of potential in each.

In one territory you are ringing up 50 cents in sales per unit of potential, while in the other you are getting $1.50 in sales from the same unit of potential. The variation in performance is, in the example cited, three to one. In analyses of scores of companies' sales, that range is as close as I have ever seen. More often the range is on the order of five to one, ten to one, or twenty to one. I have even seen ranges as high as 800-to-1!

Now let's underline the very practical profit-promise significance of variations like those cited. That significance is great. It boils down, in essence, to this: There is no quicker and easier way to throw a big transfusion of high-profit volume into the average company's veins than by correcting existing weaknesses in low-performance territories.

A little thought will show why this is so. Consider your own strongest and weakest territories. You are "in business" in both. You have a salesman, sales agent, or distributor covering each. Advertising, in all probability, covers both with about equal weight. There is just this one important difference between them: In one of them you are getting three times (or more) as much volume per unit of potential as you are in the other. The profitability factor is present be-



B&W Universal Pressure Steam Generator at Philo Plant is fired by B&W-developed Cyclone Furnaces for complete combustion of coal and minimum fly ash discharge.

First commercial Supercritical Unit is on the line at Philo Plant of Ohio Power Company on American Gas & Electric System.

A MAJOR BREAK-THROUGH FOR ECONOMICAL ENERGY

Supercritical Pressure Unit in Ohio Probes New Frontiers in Power Generation

Generating history is being made at the Philo Plant of the Ohio Power Company on the American Gas & Electric System. Here, America's first commercial supercritical pressure steam-electric unit is in operation, probing the frontiers for new economies in the production of energy.

A Symbol of the Vision and progressiveness of America's public utilities and their suppliers, Philo is a landmark in engineering history. It is the result of years of engineering, research, and development that solved the many problems which had stood in the way of greater plant efficiency that comes with the highest possible combination of pressure and temperature.

The Problems Solved included the very difficult ones of feedwater chemistry, of heat transfer and control of internal deposits, metallurgy for higher temperatures combined with higher pressures, and development of control and operating techniques.

Philo's Supercritical Unit, with a turbo-generator operating at 4500 psi and 1150F, is producing over 120,000 kw, in the same space and using 45 per cent less fuel per kwhr than the 40,000 kw unit it replaced.

Two More B&W Universal Pressure Steam Generators are now being built for the American Gas & Electric System. Together these will produce 900,000 kw—enough to supply residential power for a city of 8,000,000. Like Philo, they will continue to push forward this new frontier in steam generation.

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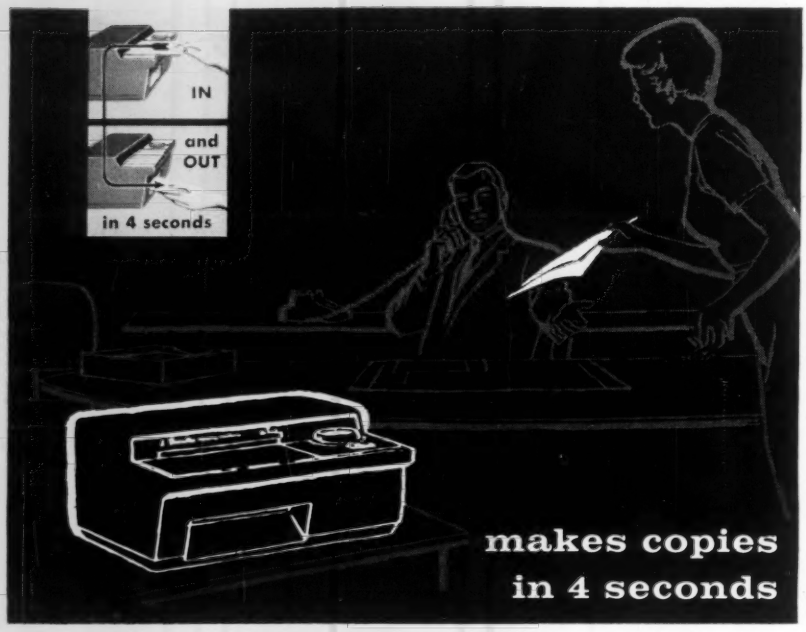

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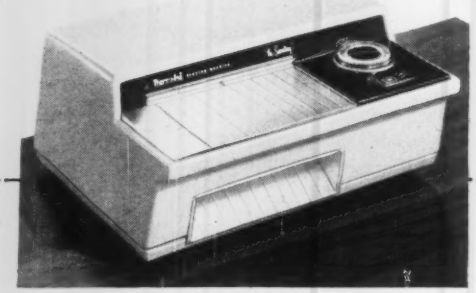

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cause you are already paying the costs, or most of the costs, of getting business from your weak territory. You just aren't getting the business you should there, potential considered. When you do get it—and you can, as the experience of countless companies has demonstrated—the volume is high-profit volume because the additional costs of securing it are relatively slight.

The Sales Deficit Concept

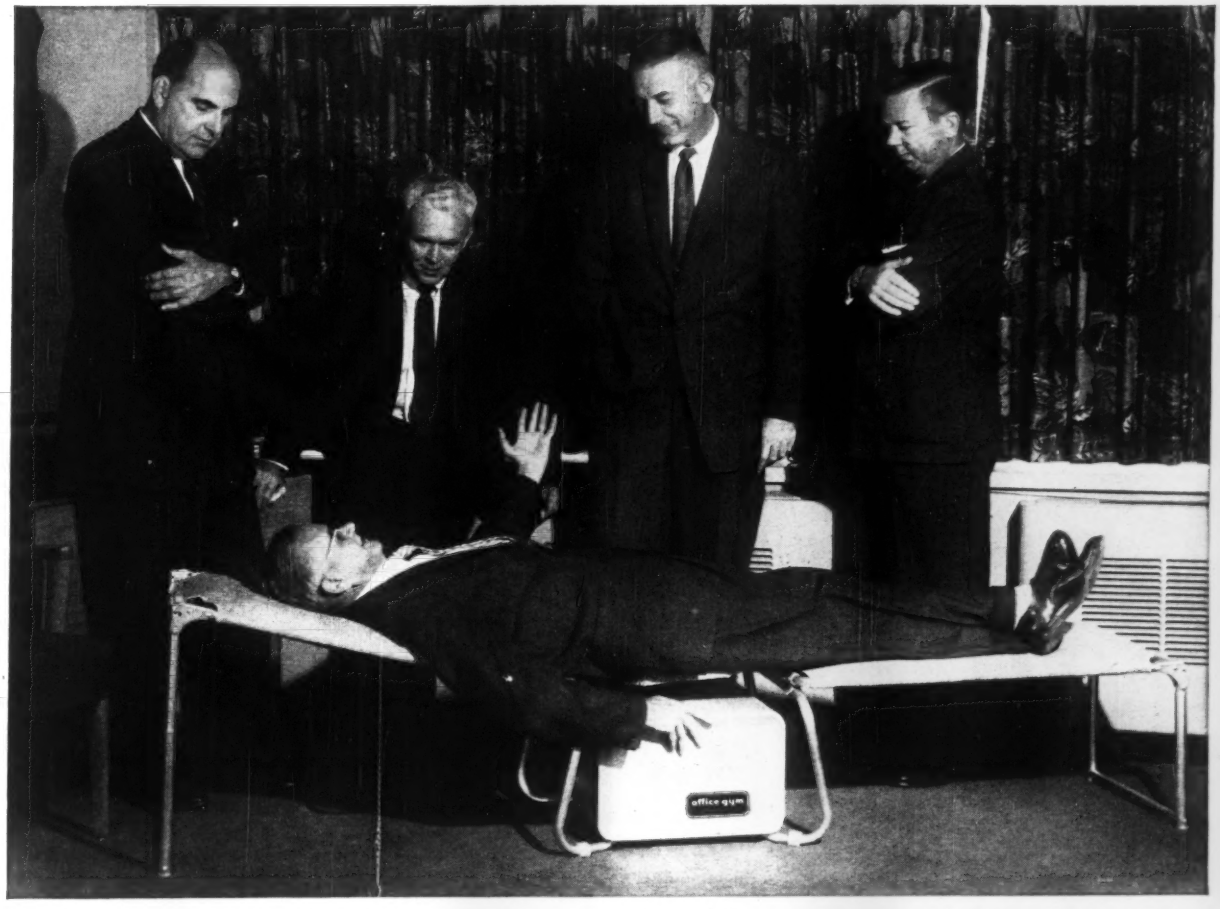
One of the scarcest commodities in almost every marketing organization, experience indicates, is sales-supervisory manpower. This is the type of manpower necessary to move into a problem territory and dig into the causes of the weakness. What you want to do, when you face that shortage, is put the manpower available where it will do the most good.

As a guide in assigning priorities to the below-average-performance territories, another concept is helpful. This concept involves the use of a sales deficit figure for each sub-par territory. The sales deficit is simply the number of dollars of lost volume that the existing weakness in each territory represents. It is calculated by subtracting actual sales from the sales par. Naturally you will assign top priority to the problem situations in which the most dollars in lost sales —i.e., the largest sales deficits—exist.

Picking Your Index

Now let's return to what may seem to be the key element in your program: the selection of a market index. In practice there are two quite different approaches to this problem. In one approach, the man responsible for market-index selection will spend months and months examining possibilities weighing each, and so on. In the other, he will spend little time on the market-index selection problem. He'll simply pick, on judgment, an index which seems to fit his problem—and go to work on it.

Surprising as it may seem, the latter approach has been proved to be far sounder. Here's the explanation: Consider the spread in sales performance in the example above—the top-performing territory with a PI of 150, the low-performing territory with a PI of 50. Now let's concentrate on the weaker territory. Suppose that it represents 5 per cent of company sales—whereas, according to the market index, it should repre-



How To Help Keep Your Key Men Fit

Today as never before, Management faces the problem of "Executive Tension" in the key man who is overwrought, often overweight, and losing his grip on his job.

MANAGEMENT has a big investment in top flight executives. With these key men in short supply today, firms across the nation are faced with the grave problem of keeping their executives in good health.

Tied to his desk, today's executive is often unable to get *regularly* the exercise essential to good health. He builds nervous tensions while adding dangerous pounds to his weight. Or he becomes a "weekend athlete"—cramming all his exercise into a day or two of violent activity that could seriously strain his heart.

Happily, there is now a way to avoid these dangers. It's the Stauffer Executive Fitness Program...the modern way to:

- Get essential exercise *effortlessly* ...without fatigue.
- Ease away the muscular and nervous tensions that a normal person builds up during a hectic business day.
- Help get rid of unsightly and unhealthy flabbiness, to help achieve a figure without stoop, paunch and sag.

All this is accomplished with the help of the unique Office Gym ®. Perfected by pioneer figure control expert, B. H. Stauffer, it is the heart of the Stauffer Executive Fitness Program. (Furnishing of Office Gyms to executives, in a health program, would be tax deductible.)

A half hour on the Office Gym provides essential daily exercise—importantly, without fatigue. Executives report that this exercise makes them feel wonderfully relaxed...relieved of mental strain...actually mentally sharper. They say an Office Gym session—at home, or in their office—can be one of the day's most pleasant periods.

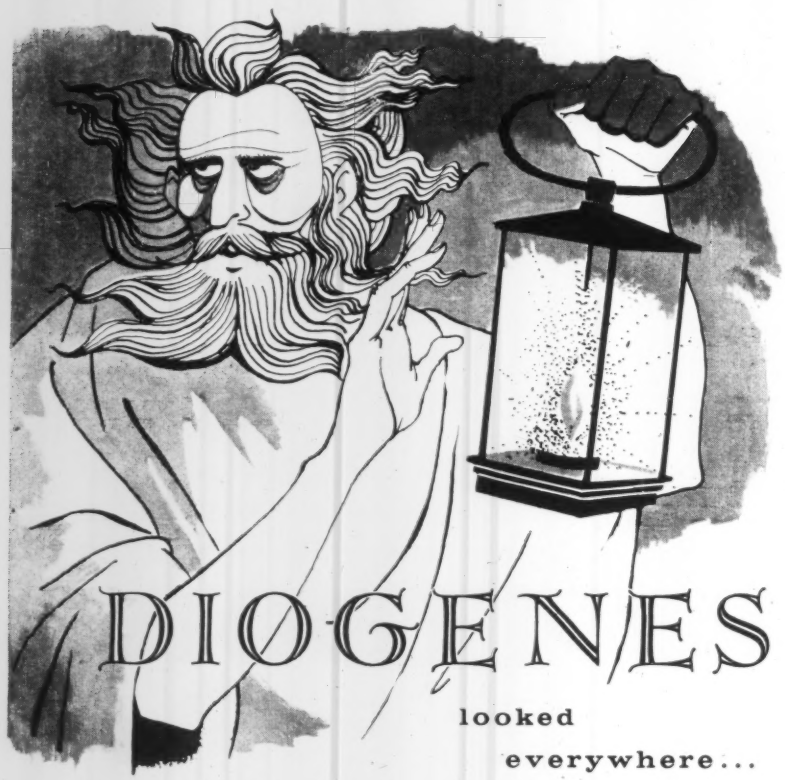
Consistent use of this program of effortless exercise and calorie reduction helps remove excess weight and restore a trim figure without starvation diet or strenuous exercise.

You simply lie down on the Office Gym and let it go to work—gently massaging and exercising you while you relax. No need to undress; just take off your coat, kick off your shoes. If business has to intrude, you can use the time profitably in dictation or in reading business reports or summaries.

The Office Gym is completely portable, weighing but 32 pounds. It can be stored in small closet space, and is ready for use—in your home or in your office—in seconds.

The Stauffer technique has been proved over a 20-year period. It is the basis of the famous Stauffer Home Reducing Plan which is helping women throughout the country reshape their figures.

If you would like further information about the Stauffer Executive Fitness Program and how it can be of value to your firm, write: Stauffer Executive Fitness Program, Dept. D-117, 1919 North Vineburn Avenue, Los Angeles 32, California.



Lamp in hand, Diogenes tramped barefooted through the streets of Athens looking, he said, for a truly honest man. There must have been many relatively good men and true in old Athens. The trouble was probably with Diogenes. Like many of us, he aimed for perfection and just set his standards too high.

Today, many manufacturers find themselves in a like fix.

In their zeal to make an honest product, they frequently reject parts and materials that would be perfectly good for their purposes. Why? Because they reject for *seeming* defects. Or, they toss out bad parts far too late,—*after* much production time and labor have been spent on them.

In either case, these men rob themselves of legitimate profit through unnecessary high cost.

Magnaflux nondestructive test systems are in wide use, as a means of controlling production costs and quality. They make defects visible or show incorrect material characteristics or composition—at any stage of the production processes. Such early detection permits rapid correction of small troubles before they become big and expensive.

If you would shed light on how Magnaflux Test Methods could help improve your production operations, write for your copy of "LOWER MANUFACTURING COSTS". This new booklet clearly illustrates where and how these production tools have helped others. They can do the same for you.

Test equipment by Magnaflux can be tailored to your exact needs. Prices vary from a few hundred to a few thousand dollars—outright sale, no rentals required.
Moral: A little light can uncover a problem...a little thought can suggest a cure.

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sent 10 per cent. It is the ratio of the 5 per cent (actual sales) to 10 per cent (potential sales) that gives us the PI of 50.

Now suppose our market index is in error—it's not precisely accurate. If we assume it errs by plus or minus 10 per cent, we divide the 5 per cent by either 11 per cent or 9 per cent, and we have a performance-index figure somewhere between 45 and 55. No matter how you slice it, that's a problem territory. Or suppose the index is in error by as much as 20 per cent. Divide the 5 per cent by 12 per cent or 8 per cent or any figure in between, and you come up with a below-par problem situation. Any market index that in your own judgment fits your situation is likely to be quite accurate enough for your initial territorial sales-performance measurement.

THE AUTHOR • In 1955, after eight years as director of marketing research and one of the owners of Tatham-Laird, Inc., a Chicago advertising agency, Richard D. Crisp became president of his own firm, Richard D. Crisp and Associates, Inc., a specialized consulting organization in the marketing-management field. He has also been staff assistant to the sales vice president of S. C. Johnson & Son, Inc.; manager of the marketing department of Foote, Cone & Belding; account research supervisor for Lord & Thomas; and a member of the merchandising staff of Young & Rubicam, Inc. He lectures at Northwestern University and is the author of several books, including *Marketing Research*, just published by McGraw Hill, and sales analysis texts used by the International Correspondence Schools.

The practical approach here is to get what seems to be a good (though not perfect) market index. Use it. Find your below-par territories. Start the wheels grinding to find the causes of those weaknesses and correct them. Then—while remedial work is in progress—put as much time as you can spare into refining and improving the market index.

Problems or Opportunities?

Up to this point there have been frequent references to weaknesses in sales performance. It is important to introduce a distinction in tense here. When you are analyzing past sales performance, a territory in which sales have been far below par

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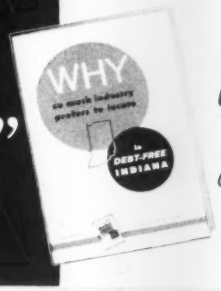

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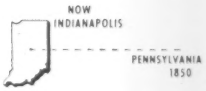

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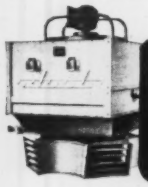

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unquestionably represents a relative weakness. When you are translating the results of this approach to the sales organization, however, you should switch your tense. You should recognize that a past weakness represents, in effect, a present or future *opportunity*.

A Double-Edged Tool

Speaking of tense, this approach can be used with equal facility in the past or future tense. Thus you can use it to conduct an analysis of sales performance in a time-period that is behind you. You can also use it in conjunction with a sales forecast to guide you in setting realistic sights for future performance. It is especially useful in increasing the accuracy of your sales-quota setting.

An application of it to quota-setting that has measured up to the needs of practicality might take this approach: Select some number of years in the course of which you expect (or hope) to correct to a considerable extent your existing pattern of sales weaknesses. Suppose we take five as that number, and embark on a "five-year plan." We have analyzed past sales performance. Our weakest territory has a PI of 50. The number of points of sales performance separating that territory from a just-average job is 50. Divide the number of points (50) by the number of years (5), and you get the target increase in sales performance for the year ahead. That would be last year's PI (50) plus the target increase (10), or 60. Thus the quota for next year would be 60 per cent of the territory's sales par, as we have calculated above.

One important advantage of this approach is that it eliminates the personal factor, and reduces the likelihood that favoritism will enter into quota-setting.

Getting Under Way

It should be emphasized that this approach to increased marketing-management effectiveness can pay rich dividends in added profit and volume. It should also be emphasized that a sales problem in a given territory, uncovered through this approach, won't go away simply because you wish it would. To make this program work, it's necessary to combine the analytical approach described above with a planned program for finding the causes of weak-

ness and for taking positive action to eliminate the causes thus uncovered.

One last word of caution: If you introduce this approach into your organization for the first time, there is one problem that may frequently develop.

Look Before You Leap

Analysis shows that a given territory is very weak. The marketing executive studies the facts and decides that they "prove" the territorial salesman or district manager there is no good and should be replaced. This is where the experience of many companies says "Whoa!" The initial territorial sales-performance level represents the net effect of everything you have ever done in all the years in which you have been in business in a territory. It may well have been weak long before the present man moved in, and he may be achieving real progress in overcoming the weakness. Don't jump to conclusions. Share with your men the knowledge you develop about existing opportunities, and you'll soon find out which of them are "on the ball."

When this program has been in progress over a period of time, the trend in the level of sales performance becomes a key factor to watch. Unless you know where you are weak and where you are strong, strong territories are likely to get stronger and weak ones weaker. This approach is a way, first, of finding out where you are strong and where you are weak, and, second, of measuring your progress in correcting your weaknesses. END

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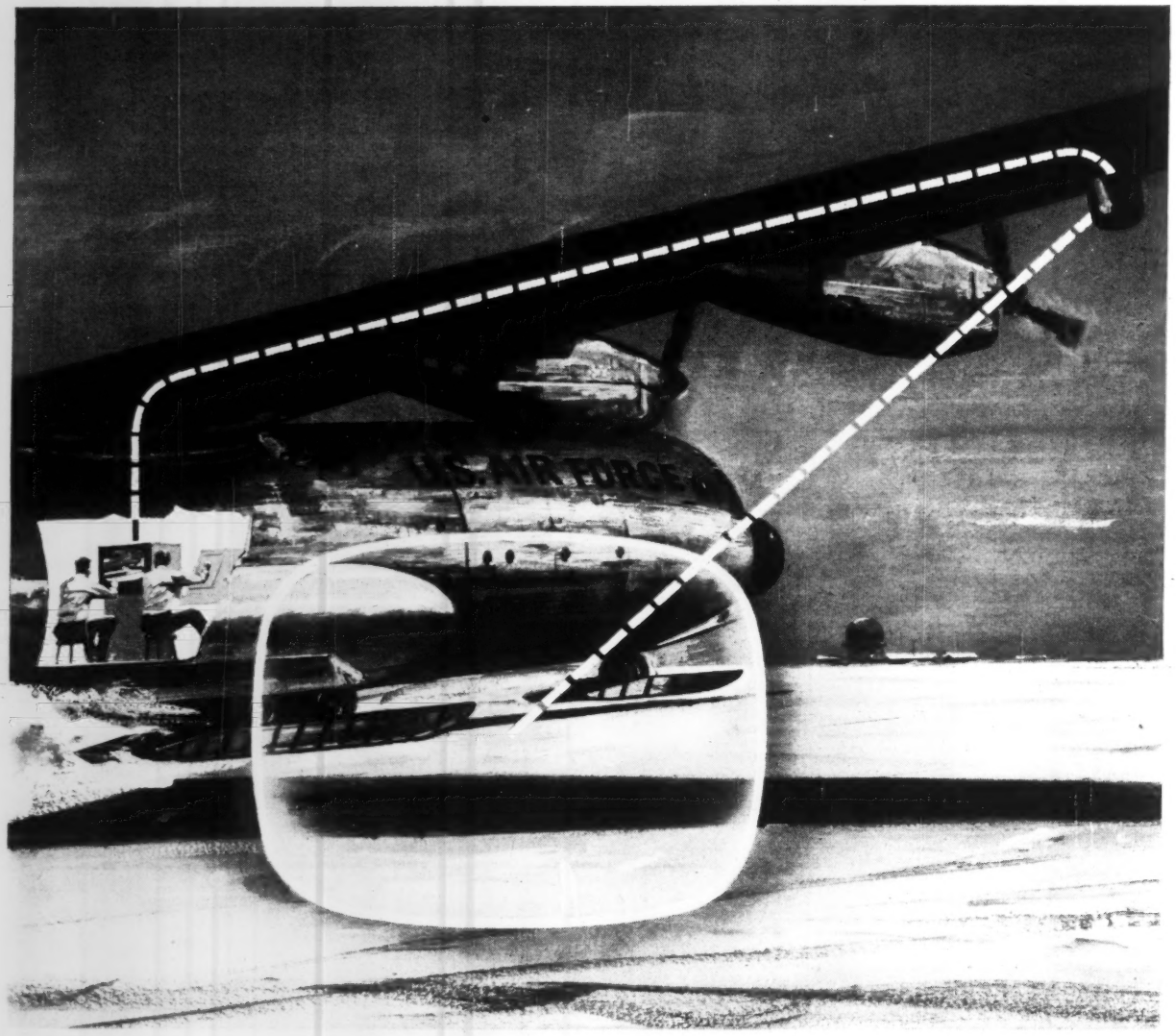

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KNOW YOUR EXPORT CREDIT TERMS

ALEXANDER O. STANLEY, *International Markets Editor*

To make the most of your present overseas markets—and open up new sales areas in the future—you've got to know your way around in the export credit field. Here's how 118 U.S. companies sold over $500 million abroad on cash and credit terms, and how they fared with their credit receipts.

WORLD TRADE is entering a period of uneasy adjustments, reflecting the hesitation and uncertainty about the domestic business outlook that has been evident recently in some quarters. Since the United States occupies the No. 1 spot in the interchange of exports (17 per cent of world totals) and imports (13 per cent), American activity in world markets has a telling effect on all international trade.

While the 90-odd countries with which we trade actively want the products of our plants, the produce of our farms, the primary metals of our mines, they also need a ready market for the many commodities they offer in exchange. A glut in production, a softening in prices, and a shrinking sales potential for their key exportables—such as copper, oil, coffee, and wool—make it tough for countries abroad to acquire dollars and other foreign exchange to pay their bills.

New Stress on Credit

In the past, this gap between the daily debits and credits of international trade has been reduced by the extension of commercial credits. And it may be expected that the system of carrying overseas accounts on credit will again become a popular vehicle—from necessity rather than choice.

To find out how representative U.S. companies are presently selling abroad, and what changes, if any, are being contemplated in credit policies, DR&MI recently conducted a survey among 118 U.S. companies. The findings that resulted offer management some significant guides for future planning.

Total sales volume reported by these companies for the fiscal year ending June 30, 1957 was approximately $546 million; the number of accounts sold, 7,258. The pattern of credit terms was as follows:

Letters of credit	33%
Sight drafts	32%
Time drafts	17%
Open accounts	16%

As for payment experience, the large majority of these companies (78 per cent) reported that they have received prompt payments. Sixteen per cent report slow credit payments; 6 per cent, payments delayed by exchange difficulties.

Asked whether they had revised their credit policy in 1957, 26 per cent of the companies reported liberalizing credits; 10 per cent said they had restricted credit for various reasons (usually company policy or conditions abroad), and 64 per cent reported no change. Looking ahead to 1958, 28 per cent expected to broaden their credit base, 10 per cent plan to restrict credits, and 62 per cent anticipated no change in their credit policy.

Before detailing the findings of the current study, it would be instructive to look at the results of past surveys undertaken by the International Division of DUN & BRADSTREET, INC. Since these were limited to Latin America, comparisons can be made only for that area (see table above).

It is evident that in the plush postwar years, rising sales, outward

USE OF CREDIT TERMS, LATIN AMERICA

	1937	1941	1957
Number of respondents	308	514	118
Total volume of sales (in millions of dollars)	$18.2	$102.7	$177.2
Percentage of credit sales	66	49	44
Percentage of sight draft sales	23	26	34
Percentage of letter of credit sales	11	25	20
Percentage of installment sales	—	—	2

bound on the crest of a sellers' market, encouraged the use of short or secured terms. "Cash on the barrelhead" was the popular refrain among export credit executives. This policy made for a high cash flow to U.S. exporters and seemed sensible in the face of wavering currency values and tightening import controls.

But today, when foreign governments have begun to worry about possible soft spots in the U.S. economic picture, their concern may be translated into defensive measures that could cut deeply into our export sales.

Differing Foreign Practice

The resort to credit to move the goods off factory floors or warehouse shelves is nothing new. Against the backdrop of growing inventories, credit risks seem the lesser of two evils. But to shift from a cash to a credit policy in the international field calls for a clear understanding of credit instruments. These are applied somewhat differently from those employed domestically. At the root of the problem is the fact that the commercial codes of the different countries vary, as does the degree of the protection they afford. Although sight draft covering a "to order, bill of lading" is recognized as a C.O.D. by most countries, it is not an effective instrument in others (Colombia, Honduras, Venezuela).

Definitions of the several international credit instruments in popular use appeared in the March issue of DR&MI (page 87). Further data appear in a booklet, *Sales Approach to Latin American Markets*, published by the International Division of Dun & Bradstreet, Inc. It is possible here only to review the major nuances of the key credit terms currently in vogue. The abbreviations, definitions, and highlights that follow relate to the tables on these pages.

- **L/C = Letters of credit**

Except for cash with order or other forms of cash prepayment, letters of credit are considered the most secure type of credit terms. But actually there are some 25 basic variants of letters of credit, and only the irrevocable, confirmed letter of credit provides the security of earmarked dollar funds that the term implies. First in popularity (they covered 33 per cent of all foreign trade transactions by companies in the DR&MI survey), letters of credit were pre-

BREAKDOWN OF TERMS OF SALES, VOLUME, AND

	No. of respondents active in area	Annual sales to 6/30/57 in million $	No. of A/Cs sold	Range of Export Credit Terms Most Frequently Used (percentage analysis) L/C	S/D	30ds	60ds	90ds	Over 90ds	O/A	Ins	Payment Experience (per cent) PMT	Slow	Exch. Slow
FOOD & ALLIED PRODUCTS														
Latin America	11	6.317	374	7	**45**	9	13	9	3	12	1	**69**	26	5
Europe	7	147.492	207	34	**58**	4					4	**100**		
Middle East	3	0.195	7	**67**	33							**50**		50
Far East	6	15.812	108	**64**	27	3	6					**90**		10
TEXTILE MILL PRODUCTS														
Latin America	4	0.226	37	**38**	12	12	6		6	26		**75**	25	
Europe	1	0.006	6	**66**					17	17		**100**		
Middle East	1	0.048	—	—										
Far East	2	2.714	152	**75**	25							**100**		
APPAREL & ALLIED PRODUCTS														
Latin America	6	1.289	992	3	35	12	4			**46**		**62**	36	2
Europe	2	0.342	374		30					**70**		**100**		
Middle East	3	0.035	23	**75**	25							**100**		
Africa	2	0.576	334	**40**	**40**					20		**100**		
Far East	3	0.193	113	**46**	36					18		**100**		
FURNITURE & ALLIED PRODUCTS														
Latin America	2	0.610	14	27	**38**		2	4		29		**72**	14	14
Europe	2	0.118	1	**50**						**50**		**59**	25	16
Middle East	1	0.008	1	**100**								**100**		
Africa	2	0.033	1	**67**						33		**100**		
Far East	2	0.050	1	**50**	38					12		**60**	20	20
PAPER & ALLIED PRODUCTS														
Latin America	7	14.509	541	27	**32**	8	13	2		18		**58**	36	6
Europe	7	52.291	53	38	**44**				3	15		**94**	6	
Middle East	3	0.760	5	**100**								**100**		
Africa	5	2.565	7		**50**			25		25		**100**		
Far East	4	5.676	70	**100**								**100**		
CHEMICALS & ALLIED PRODUCTS														
Latin America	9	1.491	407	18	**36**	1	9	8	7	20	1	**65**	26	9
Europe	5	6.393	159	32	**46**	4	2	2		14		**93**	7	
Middle East	5	0.077	10	**80**	20							**80**		20
Africa	5	0.001	4	**44**	28				28			**100**		
Far East	11	6.686	96	**66**	18	4	4			8		**80**	10	10
PETROLEUM & COAL PRODUCTS														
Latin America	2	0.610	92	**48**	5	18		11		18		**58**	21	21
Europe	2	1.175	57	29	**42**	4				25		**86**	7	7
Africa	1	0.001	3							**100**		**100**		
Far East	2	1.750	18	**94**	6							**66**	33	
LEATHER PRODUCTS														
Latin America	3	0.539	73	3	18	6	6	**31**	9	27		**41**	18	**41**
Europe	1		4		**100**							**100**		
Far East	1	0.004	1	**50**	**50**							**100**		
STONE, CLAY & GLASS PRODUCTS														
Latin America	4	1.620	135	23	**40**	11	9	2	5	10		**80**	17	3
Europe	2	2.528	113	26	**29**	2	21	4	16		2	**100**		
Far East	2	2.133	50	**81**	19							**65**	15	20
PRIMARY METAL PRODUCTS														
Latin America	9	140.805	69	32	**38**	9	7	7	1	6		**73**	22	5
Europe	4	106.704	4	**72**	22					6		**100**		
Middle East	2	0.001	—	**66**	33							**100**		
Africa	1	0.004	—	**66**	33							**100**		
Far East	4	1.273	4	**45**	33		11			11		**67**	33	
FABRICATED METAL PRODUCTS														
Latin America	4	0.277	125	26	23	7	7	5		**31**	1	**84**		16
Europe	4	0.017	6	**56**	22					22		**100**		
Middle East	2		3	**50**						**50**				
Far East	3	0.033	14	**100**								**100**		

Figures in bold face represent highest percentage factor.

PAYMENT EXPERIENCE BY AREAS/INDUSTRIAL GROUPS

No. of respondents active in area	Annual sales to 6/30/57 in million $	No. of A/Cs sold	Range of Export Credit Terms Most Frequently Used (percentage analysis) L/C	S/D	30ds	60ds	90ds	Over 90ds	O/A	Ins.	Payment Experience (per cent) PMT	Slow	Exch. Slow
MACHINERY (EXCEPT ELECTRICAL)													
Latin America... 14	6.295	207	31	**38**	2	1	5	11	8	4	**82**	17	1
Europe..... 10	0.516	41	40	**48**				4	8		**100**		
Middle East..... 5	2.014	75	**44**	20	4	4	4	20		4	**75**	25	
Africa..... 6	1.179	11	15	**47**	7		7		24		**100**		
Far East..... 8	1.224	28	**68**	24				8			**95**	5	
ELECTRICAL MACHINERY, SUPPLIES & EQUIPMENT													
Latin America... 9	0.897	199	25	**30**	9	9	3	1	22	1	**70**	24	6
Europe..... 9	1.382	36	27	**30**	23	4			16		**82**	13	5
Middle East..... 5	0.029	5	**82**	9			9				**100**		
Africa..... 8	0.111	29	**60**	7	7	3			23		**100**		
Far East..... 10	0.295	18	**57**	23	11	2			5	2	**86**	7	7
PROFESSIONAL, SCIENTIFIC & CONTROLLING INSTRUMENTS													
Latin America... 5	0.272	257	25	**38**	8	6			20	3	**75**	20	5
Europe..... 5	0.130	28	**33**	17	17	1			16	16	**100**		
Middle East..... 5	0.006	10	**100**								**100**		
Africa..... 3	0.124	55	**42**	21	9				21	7	**100**		
Far East..... 4	0.122	59	**50**	16	9				16	9	**92**		8
MISCELLANEOUS MANUFACTURING INDUSTRIES													
Latin America... 4	0.429	836		**53**	13	8	2		24		**70**	30	
Europe..... 2	0.012	31							**100**				
Africa..... 2	0.001	2		**50**					**50**				
Far East..... 2	0.002	1	**25**		**25**	**25**	**25**						
EXPORT BROKERS													
Latin America... 7	0.689	335	24	**35**	20	8	7	2	4		**71**	29	
Europe..... 5	0.217	25	33	**67**							**83**	17	
Middle East..... 4	0.050	4	**100**								**100**		
Africa..... 6	0.195	28	**43**	32	10	10	5				**75**	25	
Far East..... 5	0.364	11	**53**	22	5	5	5	5	5		**50**	**50**	
UNCLASSIFIED													
Latin America... 4	0.391	42		28	7				**65**		**85**	15	
Europe..... 3	2.794	13							**100**		**100**		
Middle East..... 1	0.001												
Africa..... 2	0.017	1							**100**		**100**		
Far East..... 3	0.057	3							**100**		**100**		

BREAKDOWN OF TERMS OF SALE, VOLUME, AND PAYMENT EXPERIENCE BY INDUSTRY GROUPS

	No.	Annual sales (million $)	No. of A/Cs	Terms of Sale L/C	S/D	T/D	O/A	Ins.	Payment Experience (per cent) PMT	Slow	Exch. Slow
Food industry	27	169.816	696	24	**45**	22	7	2	**77**	19	4
Textile mill pdts.	8	2.994	195	**52**	12	16	20	—	**89**	4	7
Apparel industry	16	2.435	1836	15	32	9	**44**	—	**70**	27	3
Furniture industry	9	.819	18	**39**	25	4	32	—	**70**	16	14
Paper industry	26	75.801	676	**36**	33	16	15	—	**76**	20	4
Chemicals industry	35	14.648	676	31	**35**	17	15	2	**76**	16	8
Petroleum/coal pdts.	7	3.536	170	**46**	16	25	—	13	**71**	15	14
Leather industry	5	.543	78	5	22	**48**	25	—	**45**	17	38
Stone/clay/glass pdts.	8	6.281	298	30	**32**	30	6	2	**82**	12	6
Primary metal pdts.	20	248.787	77	**39**	31	21	1	8	**75**	20	5
Fabricated metal pdts.	13	.327	148	**36**	20	14	29	1	**80**	11	9
Machinery ex. elec.	43	11.228	362	**36**	**36**	16	7	5	**80**	11	9
Electrical machinery	41	2.714	287	**32**	26	23	18	1	**76**	18	6
Prof. sci. instruments	22	.654	409	**35**	26	14	17	8	**86**	11	3
Miscellaneous mfg.	10	.444	870	2	**43**	26	29	—	**70**	30	—
Export brokers	27	1.515	403	32	**35**	28	5	—	**73**	27	—
Unclassified	13	3.260	59	—	13	3	**84**	—	**93**	7	—
Total/average	—	**545.802**	**7258**	**33**	32	17	16	2	**78**	16	6

Figures in bold face represent highest percentage factors

dominantly used in shipments to the Middle East (three out of every four transactions), and to the Far East (two out of three transactions). They were less frequently used in exports to Latin America—once in every five sales. Distant markets and uncertain or weak economic conditions seem to influence exporters in favor of letters of credit.

The industry pattern seems fairly constant except in the case of the apparel group (15 per cent of the transactions), the leather group (5 per cent), and the miscellaneous manufacturing group (2 per cent). Letter-of-credit terms were extensively employed by the textile mill group (52 per cent of the transactions) and the petroleum and coal products group (46 per cent).

- **S/D = Sight Draft**

The sight draft, the C.O.D. of international trade, usually calls for the release of bills of lading against cash payment to the collecting bank. There are occasions, however, when the documents are sent direct to the buyer abroad—to enable him to examine the goods before customs clearance, for example. But these cases are the exception.

In terms of popularity, sight drafts are a close second to letters of credit: they are used in 32 per cent of all transactions. The sight draft is much in vogue for Latin American and European transactions, covering roughly a third of the shipments. But it is infrequently used as a bill of exchange in the Middle East (11 per cent of the transactions) and the Far East (19 per cent). Here again, distance, heavy commitments in shipping costs, and uncertain market conditions inhibit the use of this short-term paper, which entails some risk of refusal of shipment and consequent loss in time, turnover, and money for the exporter.

Users of Sight Drafts

It is, however, on the high-use side in the food industries group (45 per cent of the transactions) and the miscellaneous manufacturing industries (43 per cent). Industries that use it infrequently include the textile mill group (12 per cent), petroleum and coal group (16 per cent), the fabricated metal products group (20 per cent) and the leather products group (22 per cent).

- **T/D (or 30 ds/60 ds/90 ds + 90 ds) = Time Drafts**

Time drafts are the most variable

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credit instruments in export shipments. They provide the maximum in credit safety for the exporter and allow a credit period to buyers abroad. There are two basic variants, the sight draft and the date draft. The difference hinges on who fixes the maturity date. For example, the 30-day sight draft maturity is established from the time the buyer *accepts* the draft. Conversely, the 30-day date draft credit period starts at the time the seller *issues* the draft. Usually, exporters are governed by the credit responsibility of the buyer and the transportation time in deciding which type of document to use. Then, too, there are certain conditions (need for pre-examination of merchandise at customs, for example) under which exporters allow the buyer abroad to take possession of bills of lading and other documents without first accepting the draft. This is known as "time draft/clean." It involves an important concession, since the transaction then becomes virtually open account, with acceptance in suspense until the buyer chooses to sign the draft. The standard practice, identified as "time draft/attached" requires formal acceptance and acknowledgment of the debt before delivery of the shipping documents to the buyer. These instruments are required in every instance to clear the merchandise through foreign customs.

Facts on Procedure

Because time drafts are unfamiliar to the average U.S. company, it is important to spell out two vital and fundamental techniques.

1. *Instructions to banks on drafts.* Banks handling foreign drafts for collection usually furnish their customers with instruction sheets to be attached to each draft drawn. These forms request instructions on how the draft is to be presented and what is to be done by the correspondent bank (which becomes custodian of the goods) in case the draft is refused. Too much care cannot be exercised in filling out these instruction sheets.

2. *Protest actions.* One of the prime laws governing bills of exchange in Latin America, and other countries where the Napoleonic Code is the basic pattern for the commercial statutes, has to do with the protest of time drafts. If an exporter ships on time-draft terms and properly instructs his bank, he is allowed by law to protest the draft for nonpayment within a designated time limit. This in due process leads to an "executive judgment" issued in his favor entitling him, in some countries, to embargo or shut down the establishment of his customer until the draft is liquidated.

Value of "Protest"

The importance of protest is sometimes overlooked. In many countries a repudiated draft has no standing in court unless a formally notarized statement of the facts, technically known as a "protest," is attached. Unless the bank is authorized to issue this, charging the fee to the exporter or adding it to the face of the draft, subsequent suit may be impossible.

In countries where valuable rights are sacrificed by not protesting, it is ordinarily good judgment to protest. But consideration should be given to the cost of protest in relation to the amount of the claim, the time limit for protesting, and the legal benefits to be derived. Protest is legal evidence that the bill has been presented and the buyer has not paid, and it preserves the right of recourse against third parties. In some coun-

AREA ANALYSIS OF EXPORT SALES AND PAYMENT EXPERIENCES OF 118 U.S. COMPANIES

	Total Sales (million $)	No.	No. of A/Cs	Terms of Sale (per cent) L/C	S/D	T/D	O/A	Ins.	Payment Experience (per cent) Pmt	Slow	Exch. Slow
Latin America..	177.266	104	4,735	20	34	25	19	2	69	23	8
Europe.....	322.118	71	1,158	34	36	12	14	4	92	5	3
Middle East....	3.225	40	143	75	11	11	2	1	92	8	—
Africa.....	4.807	43	475	45	25	10	19	1	98	2	—
Far East.....	38.388	72	747	63	19	8	6	4	84	8	8

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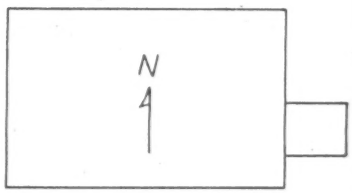
"BIG WHEEL"!



Project:
Major Automotive Supply Depot, Atlanta, Georgia

Architects:
Smith, Hinchman & Gylls, Inc., Atlanta

Contractors:
Henry C. Beck & Company, Atlanta

ALL STRUCTURAL STEEL fabricated and erected by International Steel Company

This steel framework marks the site of a major automotive supply depot — and still another step forward in Southern industrial progress. It is the second of two such facilities brought to Atlanta this year, each built for one of the "big three" automobile manufacturers . . . with all structural steel for *both* projects fabricated *and* erected by International. This dual choice of a relatively distant source of steel for construction was based on two prime factors: (1) International's nationally proved ability to fabricate steel to the most exacting specifications (2) and to follow through with deliveries and erection to match the most demanding construction schedules. America's leading contractors count on International Service . . . So can you!

See Our Complete Catalog in Sweet's Industrial Construction File 7a

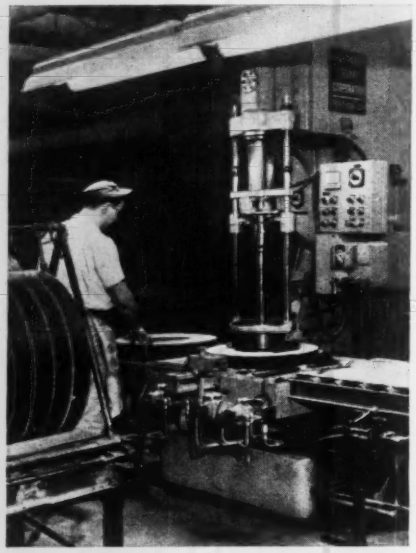
INTERNATIONAL SERVICE

INTERNATIONAL STEEL COMPANY
1323 EDGAR STREET • EVANSVILLE 7, INDIANA

Why MICROHONING

Lowers Costs, Increases Production, Improves Quality of Grinding Wheels

Bay State Abrasive Products Company, one of the largest and most progressive manufacturers of abrasive products, Microhones the arbor hole of their snagging wheels to secure improved wheel performance, reduce manual handling, lower processing costs and increase production.



Why Microhoning Saves Time, Energy and Reduces Processing Costs of Arbor Holes over 50%:

1. **Less Equipment**—one Microhoning machine does work of two grinders.
2. **Less Operating Costs**—Microhoning processes 450 to 600 grinding wheels per set of abrasive sticks; abrasives cost was substantially higher with former grinding method.
3. **Less Maintenance**—Hydrohoner has no chucks to maintain and there is now only one machine instead of two.
4. **Less Gaging**—Microhoning *automatically* brings arbor hole to size within .003" tolerance; former grinding method required repeated gaging during operation.

Why Microhoning Improves Performance of Grinding Wheels:

1. **Better Fit**—inherent qualities of the Microhoning process are geometric accuracy and ability to hold close tolerances . . . rounder and accurately sized arbor holes assure a better fit.
2. **Less Arbor Wear**—Microhoning cuts both abrasive grain and resinoid bond while producing a smoother hole.
3. **Less Chatter**—Microhoning assures arbor holes that are square with faces and more concentric with O.D.

See page to right for "How Microhoning" accomplishes the above results.

The principles and application of Microhoning are explained in a 30-minute, 16mm, sound movie, "Progress in Precision" . . . available at your request.

☐ Please send me "Progress in Precision" in time for showing on _____(date).
☐ Please have a Micromatic Field Engineer call.
☐ Please send Microhoning literature and case histories.

NAME _____
TITLE _____
COMPANY _____
STREET _____
CITY _____ ZONE _____ STATE _____

MICROMATIC HONE CORP.
8100 SCHOOLCRAFT AVENUE · DETROIT 38, MICHIGAN

tries the preferred status given to protest items is known as "executive action." This provides:

1. Restrictions on the defense that may be set up by the acceptor, other than fraud.
2. Facilities to obtain a judgment in less time than if the suit were brought under common civil action.
3. The right of attachment of the debtor's property upon commencement of the legal action.

In such countries, therefore, protest is an advantage, and usually results in some effort on the part of the debtor to arrange a satisfactory settlement.

Ordinarily, this will save the substantial costs of prosecuting a suit under "ordinary action." Since "ordinary action" is based on a contract, the defendant can set up the defense that the goods were not in accordance with the sample, or were not delivered. Where the defendant wishes to avoid payment, he can prolong the suit under "ordinary action" and delay final judgment for a lengthy period. This explains, in part, the reluctance of experienced exporters to ship goods on open account except to the most reliable concerns. An "executive action" brought about by protest of the accepted draft, on the other hand, makes it possible to obtain judgment in five or six weeks in many cases. This is a very valuable right.

Not Commonly Used

It is difficult to set forth any general rule regarding protest. Actually, use of this drastic measure is only infrequently necessary. It does, of course, provide a high degree of protection in the hands of a competent credit manager, and for the most part the legal steps are simple and inexpensive. However, where the exporter is so uncertain about the buyer's credit responsibility that he feels it necessary to instruct his bank to protest a draft for non-payment, it might be far wiser simply to restrict the account to fully secured terms, requiring a letter of credit or a substantial cash deposit, and let the balance of the shipment go forward under straight sight draft, documents against payment.

As the DR&MI survey shows, time drafts are comparatively popular in shipments to Latin America. They accounted for one in four of every transaction in this area. Less in use in

shipments to Europe (12 per cent), the Middle East (11 per cent), and Africa (10 per cent), they are rarely employed in trading with the Far East, except in the Philippines, where 60- and 90-day sight drafts are common. These drafts are covered by trust receipts, issued by Philippine banks, which in effect discount the draft "with recourse" to the buyer. This type of discount is similar to an overdraft, and is available to the better credit risks locally.

Who Uses Time Drafts

Time drafts are most popular with the food industries (22 per cent), the leather group (48 per cent), the stone, clay, and glass group (30 per cent), the primary metals group (21 per cent), the electrical machinery group (23 per cent), miscellaneous manufacturing industries (26 per cent), export brokers (28 per cent). And they are least popular with the apparel group (9 per cent) and furniture group (4 per cent).

- **O/A = Open Account**

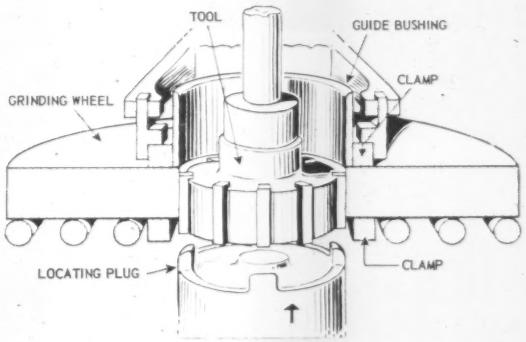
Open accounts are the accepted standard in domestic trade and require no definition. But they should be used circumspectly and made available only to the best risks. In many countries of the world a dispute involving open account transactions calls for such monumental paper evidence of shipment, and is so costly to litigate, that exporters are prone to backtrack and sacrifice dollars just to stay out of court.

The current survey finds only 16 per cent of shipments made on open account, mostly to Latin America (19 per cent), Europe (14 per cent), and Africa (a surprisingly high 19 per cent). The Middle East received only 2 per cent of its shipments on this basis, and the Far East was next lowest with 6 per cent.

Industry practice on open account shows a wide disparity. Open account terms are favored by the apparel group (43 per cent of the transactions), the furniture group (32 per cent), the leather group (25 per cent), the fabricated metals group (29 per cent), and miscellaneous manufacturing industries (29 per cent). Open terms were employed only infrequently by the food group (7 per cent), the stone, clay, and glass groups (6 per cent), the primary metals group (1 per cent), the machinery group (7 per cent), and export brokers (5 per cent).

How MICROHONING
Lowers Costs, Increases Production, Improves Quality of Grinding Wheels

By changing from grinding to Microhoning of arbor holes, Bay State Abrasive Products Company has realized substantially lower processing costs, raised productivity and improved the performance qualities of their snagging wheels.



Here's How Microhoning Now Saves Time, Labor, Material and Processing Costs:

1. Snagging wheels now travel from facing machine to Hydrohoner on a conveyor—there is no manual lifting or handling.
2. A disappearing plug automatically locates wheels in Hydrohoner where they are clamped on the faces and remain stationary during Microhoning operation—there is no manual placing of wheels on chucks, or chucks to maintain.
3. One Hydrohoner does work of two grinders; and one set of Bay State iron bonded, diamond sticks Microhones from 450 to 600 resinoid-bonded wheels—less equipment to maintain and lower costs for abrasive.
4. In approximately a minute, Microhoning removes from .030" to .070" of stock from arbor holes ranging in diameter from 6" to 12"—processing is faster and material is saved because wheels can now be molded closer to final size.
5. Microhoning tool automatically holds diametric accuracy within .003" tolerance—repeated manual gaging is eliminated.

See page to left for "Why Microhoning" provides cost-and-time-saving benefits.

Send Coupon for Complete Information

Learn how Microhoning will give efficient stock removal, closer tolerances, accurate alignment and functional surfaces.

☐ Please have a Micromatic Field Engineer call.
☐ Please send Micromatic literature and case histories.

NAME_____H
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CITY_____ ZONE_____ STATE_____

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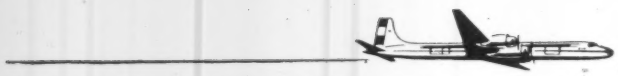

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EXPERTS WITH EXPORTS

● **Ins. = Installment Contracts**

The installment contract is used primarily in the sale of capital equipment, rarely in direct export sales to individuals in foreign countries. Here again, commercial codes are of prime importance, since repossession may be legally difficult, costly, or even impossible in some cases because of the absence of adequate statutes. Understandably, exporters tend to look with a dubious eye on installment contracts with most foreign customers.

Accounting for only 2 per cent of all export transactions, installment sales are a rarity. Two of the markets where they are employed, though only to a limited extent, are Europe and the Far East. Here only a modest 4 per cent of all export transactions were of the installment variety. And the installment contract shows up in only half the 17 basic industry groups covered by this study. Most frequent use was found among the petroleum coal group (13 per cent of the transactions), the primary metal products group (8 per cent), the professional scientific, and controlling instruments group (8 per cent). The products involved are in most instances equipment.

The Payment Record

With 67 per cent of all shipments involving some degree of credit risk—sight drafts are included, since these also entail the hazard of non-payment—it is impressive to find a high degree of punctuality in overseas payments. Better than three out of four transactions (78 per cent) were liquidated on the due dates. Only 16 per cent of the remittances were late, and 6 per cent were delayed because of exchange difficulties. Latin America was the laggard, with 69 per cent of its payments prompt, 23 per cent labelled "slow," and 8 per cent "exchange slow." Europe and the Middle East were meeting their commercial bills on due dates in better than nine out of ten cases. Analysed by trade groups, the best payment record was reported by the textile mill group, the stone, clay, and glass group, the fabricated metals group, the machinery group, and companies exporting professional, scientific, and controlling instruments. These industries placed prompt remittances at a level of 80 per cent or better. The worst showing was reported by the leather industries—prompt payments were at a low of

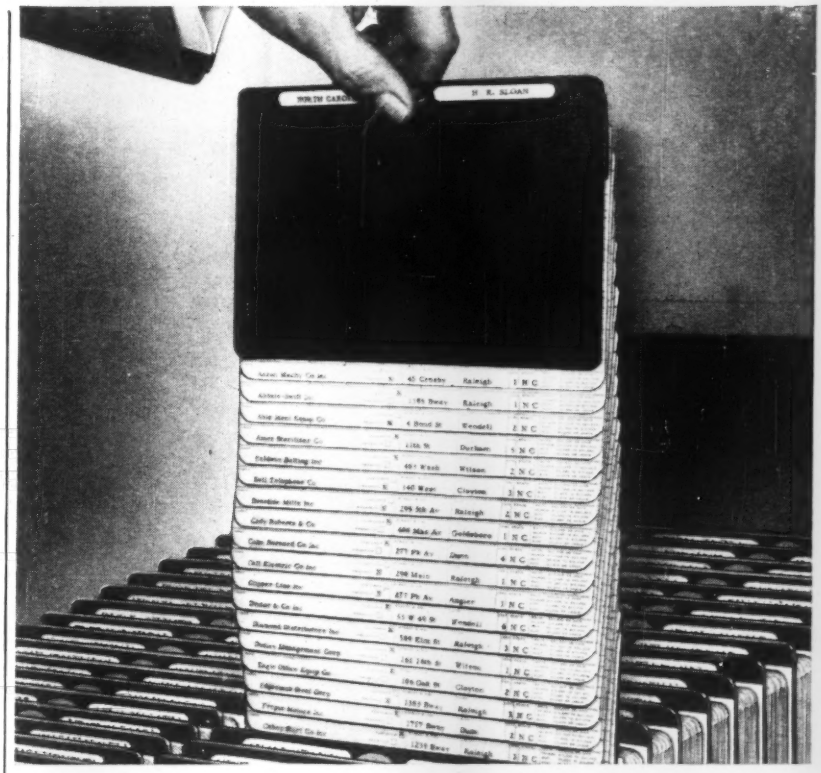
45 per cent. All other groups were receiving on-time liquidation of shipments abroad 70 per cent or more of the time.

The Case for Export Credits

Like any other instrumentality, credit can be used or abused, but past experience shows that it can help level the peaks and valleys of world economy. Traditionally credit losses in export activities have always compared favorably with those in many lines of domestic trade. For example, the previous study on this subject developed by the International Division of DUN & BRADSTREET in 1941 showed that credit losses averaged less than $\frac{1}{16}$ of 1 per cent on a credit volume of $50 million worth of sales to Latin America.

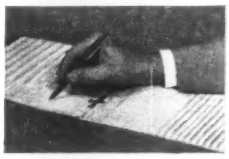
There have been proposals that the United States create a Government agency equivalent to the export credit insurance systems that have functioned for many years in Canada, England, France, Germany and many of the world's principal exporting markets. However, opinion is divided among professional export traders and service organizations regarding this type of "government support," as its proponents call it, or "government intervention," as it is described by its opponents. And whatever the future of Government credit guarantees, it is evident that U.S. companies, anxious to move their goods to the stores and shops overseas, will in the immediate future have to give serious consideration to the use of existing credit techniques. END

"Something inexpensive—to celebrate his getting a raise."



ACME **ACTIVISIBLE** RECORD PACKS

make *any* drawer a visible record file



Lies flat in natural posting position

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Portable . . . can be carried in pocket

Save Time—Lift with a single simple motion and pack opens to an instantly useable, fully visible record file with all records, both front and back, immediately available for posting or reference. Every card is securely locked in place, cannot become lost or misfiled, yet it's only a matter of seconds to attach a new card or to remove one that is obsolete.

Save Space—Packs are filed vertically in trays, desk or file drawers, tubs or rotaries. Each pack of 25 record cards, 50 records, requires only ½" of space. Removable partition "reserves" proper filing space when pack is removed. Speeds refiling avoids misfiling.

For new Records . . . For Your Present Records
Ask the man from Acme to show you samples

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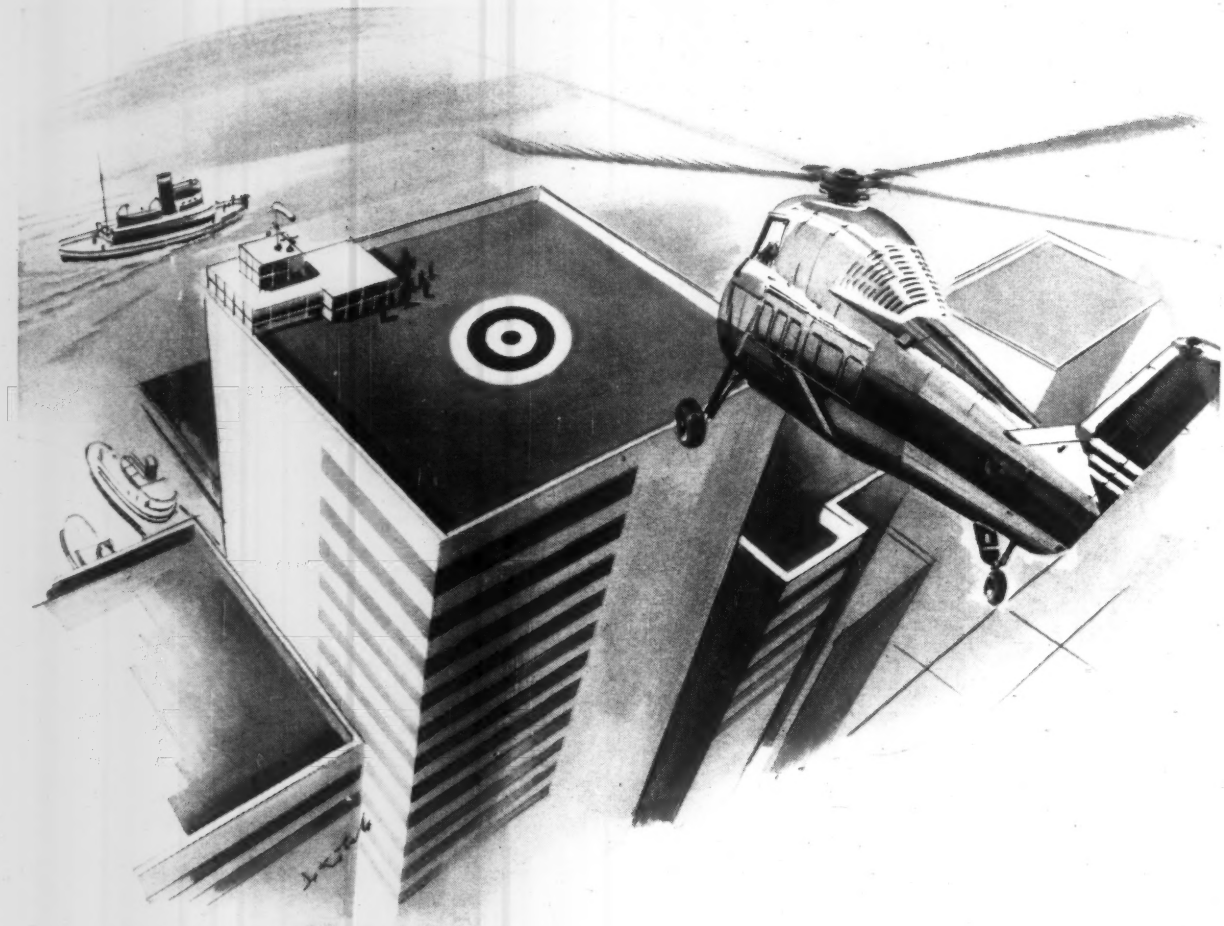
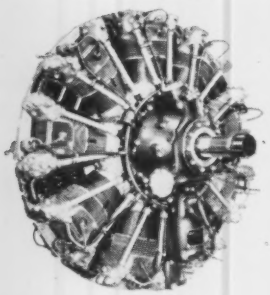


"ON TARGET"--*for business in a hurry*



The Curtiss-Wright 1525-hp Cyclone 9 has increased the altitude performance, range and lift capacity of the helicopter, to make it a vital factor in air travel today.

In major cities of the U. S. and the world today, advance-design helicopters like the Sikorsky S-58 — powered by the Curtiss-Wright Cyclone 9 engine — run on regular schedules between airports and metropolitan areas. They by-pass tedious traffic, often shorten travel time by hours.

And elsewhere, helicopters do heavy duty transporting men and materials. Last year, in the Gulf of Mexico alone, more than 85,000 flights were made carrying workers to off-shore oil rigs. In air travel, the military services, and industry — wherever business is in a hurry — the modern big helicopter has become an essential tool of transport, communication and supply thanks to its compact power package, the Cyclone 9.

WRIGHT AERONAUTICAL DIVISION

***Cyclone 9 Power by* CURTISS-WRIGHT**

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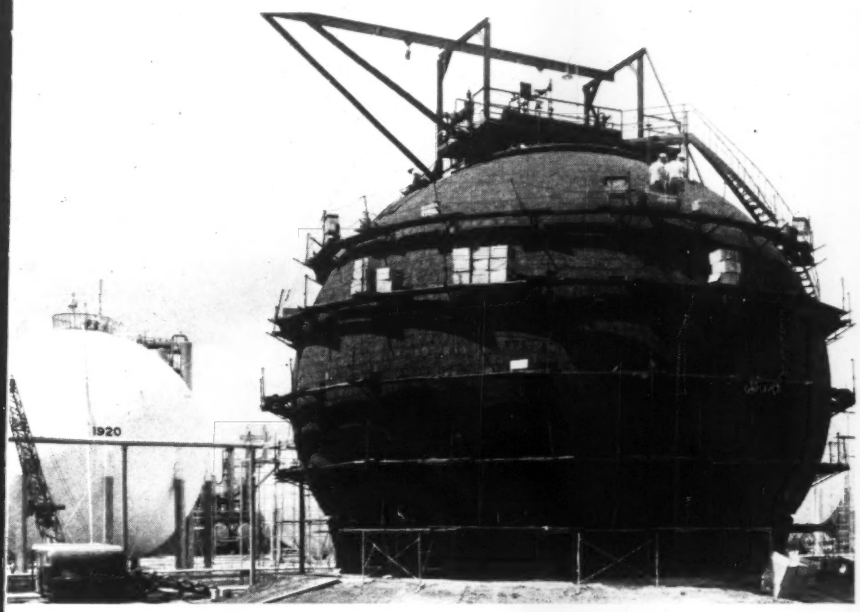
INSIDE INDUSTRY

New Methods, Materials, and Equipment



Liquefied butadiene, a major raw material in making synthetic rubber, will be stored in this unusual insulated tank. Under construction at Esso's giant refinery at Baton Rouge, La., the sphere is insulated with concave blocks of foam glass built up like an igloo. A refrigerator built into the top will hold the contents at 45° F, essential for maintaining quality. Butadiene is also used for latex paint and in the manufacture of synthetic fibers.

- *What the Satellite Means*
- *Getting Out of Established Lines*
- *What's New from NBS*
- *Permanent Lubrication*

A lesson from Sputnik

Russian success with the first earth satellite was, of course, a blow to our collective ego, and some people are trying to minimize the shock by concluding that the Russians beat us solely by massive expenditures or by picking captive German brains. But there is no evidence that the Communists were neglecting other technical advances (they have had a jet passenger airliner flying for a year) to force-feed their satellite program, or that captured Nazis had a major role in producing the new "moon." Missile technology has advanced greatly since 1945—and we, too, took our share of German rocket experts.

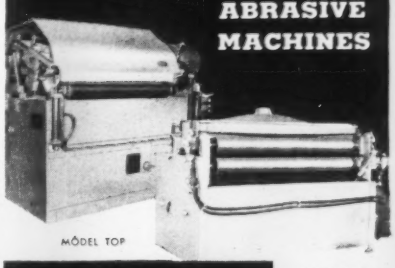
The meaning of the satellite seems clear: We've got to start worrying about the *qualitative* shortage of scientists and engineers as well as about the quantitative shortage.

An interesting sidelight on the Soviet satellite triumph is that back in the early '40's an American rocket enthusiast named Goddard, who had developed and successfully fired a prototype of what later became the German V-2, got a very cold shoulder from the Army Air Force.

Diminishing returns

Looking for new products is a logical step where profits are being squeezed out of existence by strong competition. Some of the implications of this industrial problem were

TIMESAVER
SPEEDBELT*
ABRASIVE MACHINES



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. . . for increased production and exceptional quality in sanding, polishing and finishing on all types of materials.

These amazing wide abrasive belt machines are chalking up tremendous savings for manufacturers in the woodworking, furniture, plywood, plastics, metalworking and leather industries. Hundreds of installations throughout the U.S. show production increases of 50%, 100% and more while cutting work crews in half.

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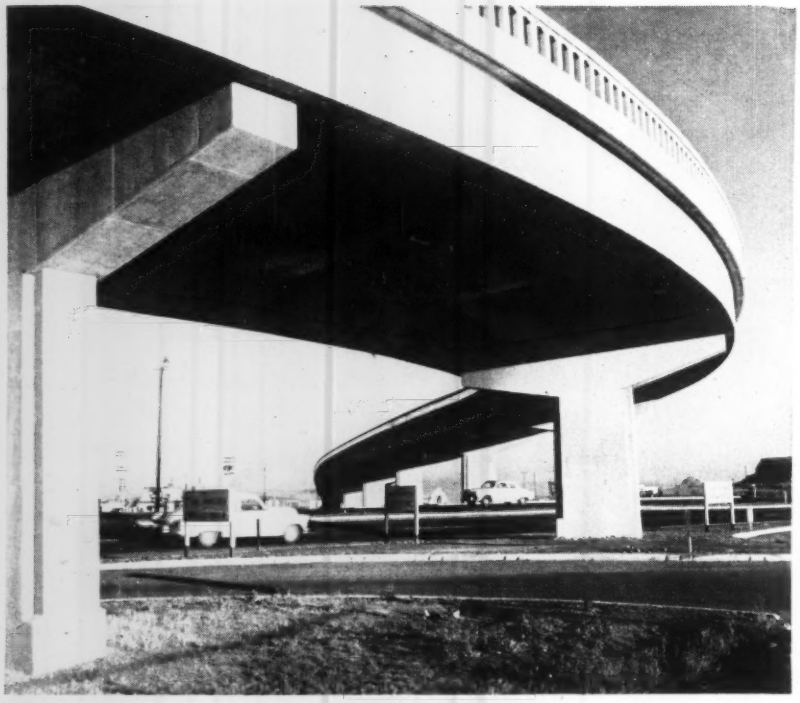


Since 1948, Ideal's sales have more than tripled, increasing from $24,970,000 to $77,690,000 in the nine-year period.

For more than 50 years, Ideal stock (and that of its predecessor companies) has been on the Over-the-Counter market. Listing has now been effected on the New York Stock Exchange and the Pacific Coast Stock Exchange.

Growing with the country

IDEAL CEMENT COMPANY

DENVER, COLORADO

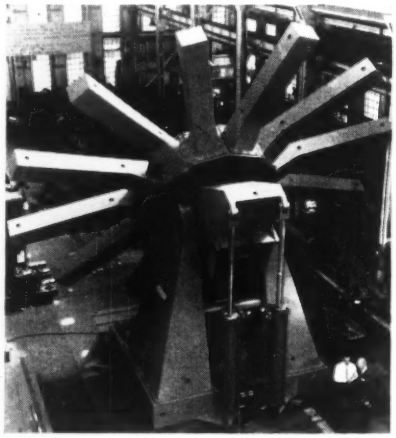
14 Plants and 3 Terminals Serving Some of the Most Rapidly Growing Areas of the Nation

PORTLAND IDEAL CEMENT

illustrated just a few months ago at one of the nation's leading independent research laboratories. The lab's director, in anticipation of a visit by the vice president for research of one of the fastest-growing corporations in America, had assembled all his specialists in that corporation's main product line. Arriving on the scene, the vice president dismissed the specialists. He was interested, it appeared, in every area of the lab but the one devoted to his company's main specialty. Mystified, the director finally asked for an explanation—and was told that the corporation's smaller competitors were catching up. They had started to cut prices to such an extent that all the profits would soon be wrung out of the company's main product line. So the V-P was after a new line of unusual products and hoped to grab a profitable lead by pioneering.

NBS contributes again

An announcement that the National Bureau of Standards will discontinue calibration of viscometers reminds us again how far this Government agency has progressed beyond its original job as keeper of the nation's physical standards. New technology is constantly generated at the NBS, which is probably the largest concentration of technical and scientific brains in the United States. Its latest developments are batteries with solid wax electrolytes and the



These aren't spokes for a giant wagon wheel, but a 100-ton welding positioner. Turning at speeds of .005 to .05 rpm, it holds extremely large parts in place while they are automatically welded. The device was designed by Pandjiris Co., St. Louis, and built for the Mare Island Shipyard by Bethlehem Pacific's San Francisco shipyard.

measurement of textural stresses in metals by x-rays.

Although developed for the Army, the batteries could have many industrial applications. Compact and easily constructed, they deliver a high voltage after long storage.

The NBS is discontinuing calibration of viscometers, which are widely used in industry to study flow characteristics of non-rigid materials, in line with the Administration's policy of withdrawing from activities that can be carried on by private industry. More time can thus be devoted to developing the new standards required by industry.

Juicy plastic

An extraordinary new plastic material that can exude an entrapped liquid very slowly has been invented—half by accident—by a man who was trying to perfect a lifelike skin for dolls.

So far, the only product made with *Porelon* is a "rubber" stamp that is claimed to give 60,000 impressions without ever touching a stamp pad. Perma Industries, Los Angeles, of which inventor Harry Leeds is vice-president, has marketed the stamp to introduce the sintered resin material, but the R & D organization is mainly interested in licensing the process for making Porelon.

Other proposed applications are:

- permanent lubrication for bearings, by means of a piece of oil-impregnated Porelon set into the bearing.
- non-spilling storage batteries, with the electrolyte entrapped in Porelon.
- identification markers built into many fabrication processes to prevent mismatching of parts and simplify inventory and storage.
- bandages and surgical dressings that apply medicants continuously.
- sheeting impregnated with silicones, which could be used to prevent corrosion in stored industrial gear.
- raincoats and shoe tops that pass body heat in one direction but exclude moisture.
- lipsticks and other cosmetic applicators that never lose their shape.

Porelon is made from a variety of sintered resin particles with liquid trapped in the spaces between the microscopic particles. The liquid emerges at a rate that can be controlled at the time of manufacture.

—M.M.

How to get your shipments out faster, at less cost

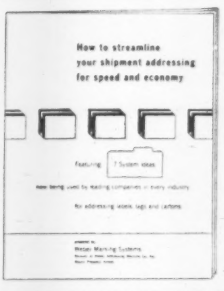
New 16-page booklet shows how easily it can be done through more systematic addressing of cartons, labels and tags

Slow, old-fashioned methods of stenciling and labeling can seriously delay your shipments. While a shipment sits on the dock ready to go, an office girl is writing out labels by hand. While a stack of cartons waits to be stenciled, a shipping clerk spends precious minutes looking through the files for the right stencilboard. And, because the pressure is on the shipping department to get orders out quickly, cartons are improperly marked and then lost enroute.

A vital operation

The stenciling and labeling of shipments is one of the most important operations in the plant because nothing gets shipped until it's been addressed. You can have the most carefully laid plans for getting your product from the production line to your customer, but if it isn't labeled, tagged or stenciled it never gets out of the plant.

Efficiency-wise companies are rapidly discovering that the key to a really efficient shipping operation is a system for addressing. This system should be fast, inexpensive, require a minimum of labor, and be tailored to your particular order-processing and material handling procedure.



Available now . . . Send for your free copy

CONTAINS USEFUL INFORMATION

- How to determine the efficiency of your present shipment addressing operation
- The key to a modern, efficient shipping department
- The latest direct-to-carton stenciling systems
- Printing and addressing your shipping labels in one operation
- How to prepare your shipping stencils with your order-invoice or bill-of-lading forms

Comprehensive booklet

In the 16-page booklet offered here you will find such a system. Thousands of companies who have already adopted them have cut their shipment addressing time by as much as 50% to 70%. Send for your free booklet. There is no obligation.

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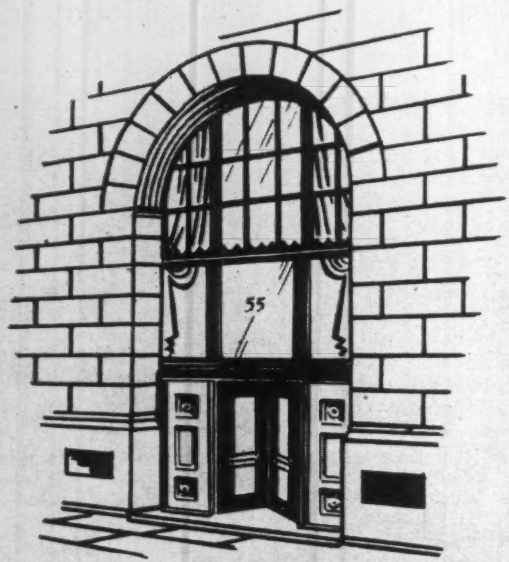
Information available for any manufacturer or distributor with $500,000 or more annual sales.



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continued from page 38

is considered desirable. The person who initiates the communication may think that the other can himself bring about change or can make some indirect contribution to a desired change. In either case, extrinsic motivation operates only if the communicator perceives the relevance of the interview to his own goals and interests, and the role of the interviewer in bringing about change.

How do these general conditions for successful interviewing apply to the executive interview? In some respects the executive-interviewer is in a very good position indeed. His subordinate knows that he can take constructive action if he wishes. Moreover, the executive's questions are likely to be most relevant to the subordinate's interests. He and the executive are members of the same organization. They are both dependent on its success, and they share in some degree the specialized knowledge involved in the creation and marketing of the company's products or services. The subordinate may have much to gain by giving the executive a better understanding of his situation.

Sometimes, however, intrinsic motivation is even more important to the subordinate. Intrinsic motivation arises from the fact that it is a psychologically rewarding experience to talk with a receptive, understanding person on a topic of mutual interest. In the executive interview, intrinsic motivation can operate only if the subordinate believes that the executive-interviewer has a sympathetic understanding of him and what he has to say. He must see the executive as capable of understanding his point of view, without rejecting him during the interview or punishing him afterwards.

Putting Motivation to Work

How can the executive tap these sources of intrinsic and extrinsic motivation?

Unless a strong personal relationship already exists, he must depend at first on extrinsic motivation. This means that he must make sure the subordinate clearly understands the purposes of the interview and how they relate to his own goals and val-

ues, and how the desired information will be used.

Consider the interview situation with which we started: The vice president might have opened the interview as follows: "Come in, Bill, and sit down. I've just heard from Johnson & Company that they haven't been getting deliveries on schedule. Now, as you know, they're among our best customers, and there's no use pretending we don't need their business. If Mr. Johnson placed his order elsewhere we'd be in real trouble. So I'm trying to face the problem of what's to be done.

"I know that we're all working up to capacity, and I'm not suggesting that these delays are anybody's fault. This whole situation is too serious to be worrying about whose fault it is. What we need is to move in and clear up the problem. So I thought I'd talk to you and Joe and Harry, and see if among the four of us we couldn't come up with an answer. After I've had a chance to think over the facts you fellows can give me, the four of us ought to get together and work out a solution. Joe and Harry will be talking primarily from the point of view of engineering and sales, of course, but for the production picture I wanted to talk to you."

This introduction meets the requirements for achieving extrinsic motivation. It makes clear the purpose of the interview and relates it to the subordinate's own goals. It tells how the information will be used. It also reassures the subordinate that he is not being threatened.

How to develop intrinsic motivation to communicate is a subtler matter, and one less easily illustrated. It depends on the interviewer's success in conveying his ability to understand and sympathize, his feelings of warmth and responsiveness.

Suppose, after the introductory statement by the vice president, the production manager replies by saying: "Well, I think the main problem is that new die-casting procedure of ours hasn't really shaken down yet. You know conversion from sand-molding to die-casting really calls for a lot of changes and adjustments all along the line." What should the executive-interviewer do next in order to increase the respondent's intrinsic motivation to communicate? Below are three possible rejoinders by the executive, along with the subordinate's probable reaction to each:

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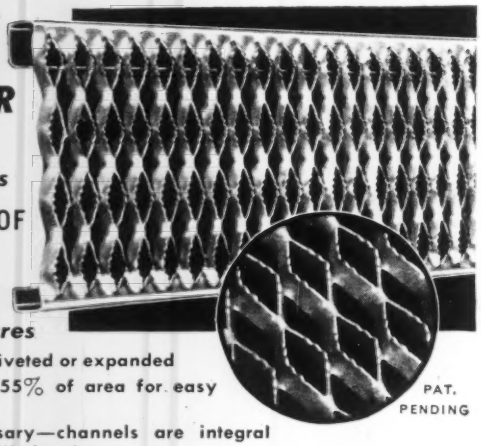

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Interviewer: Well, let's not blame all our problems on a technical change, Bill. Changes like that one have been made successfully in thousands of plants.
Subordinate: [to himself] The boss won't believe the truth when he hears it. O.K., I'll give him the kind of a story he's looking for. Better watch out, though. Sounds as if he's trying to pin this one on me.

Another possible rejoinder by the executive is less threatening, but has its own problems:

Interviewer: Bill, I'm only surprised that you're not in more trouble in the manufacturing department. You've been doing a marvelous job down there. I think your approach to this conversion is just terrific, and I want you to know I appreciate it.
Subordinate: [to himself] Gosh, if everything's going so doggone great, what am I doing here? Things aren't as good as the boss seems to think. Does he really believe what he's saying, or is he stringing me along? Either way, he's making it awfully tough for me to tell him what some of the real problems are.

For a more constructive alternative, consider the following:

Interviewer: Well, I can understand those die-casting problems. Changing manufacturing procedures always causes some difficulties. Can you fill me in a little more on the kind of troubles you're having?
Subordinate: [to himself] I guess he's not going to put me on the spot, anyway. He seems to have some idea how tough these conversions can be. Maybe I can even get some help.

How do these three alternative approaches by the executive-interviewer measure up in the light of our criteria for developing intrinsic motivation? The first approach is openly threatening. It subjects the subordinate to immediate pressure, strongly implying inadequate performance on his part. The second approach appears to be more satisfactory: It meets the superficial "human relations" requirements. But as a method of getting information it isn't likely to work. The subordinate will evaluate this burst of praise in one of two ways. If it is insincere, the boss is merely trying to make him feel good. If it is sincere, he must live up to the image of impossible perfection the boss has painted. Far from stimulating frank communication, the boss has only made it more difficult for the subordinate to confess to problems or inadequacies.

Contrast these two approaches with the last alternative. Here the executive makes no evaluative judgment, either good or bad. Instead, his statement implies that he can

understand the subordinate's difficulties and that he is interested in learning more about the nature of the problem. His subordinate concludes that the boss is genuinely interested and can accept the existence of problems without looking for a scapegoat. Because the subordinate does not need to be defensive or prove himself, he can communicate more freely and accurately. As the vice president continues to develop this type of relationship, barriers are removed and positive motivation to communicate is increased.

Focusing on Objectives

But free and unguided communication, regardless of its volume, will not meet the needs of the executive. Each interview must have a purpose, and it is the interviewer's responsibility to control the content of the interview accordingly. To do this, he must know in advance what it is that he wants to achieve. He will also need to have well in mind the key questions he wants to ask. This preparation serves the interviewer much as a topical-outline or a set of notes serves a man about to make a speech.

But how much preparation is feasible for a busy executive, and what form should his preparation take? In most cases, all he must do is to spend a few thoughtful moments jotting down major objectives and noting a few key questions with which to introduce these objectives into the conversation. The executive's notes might read:

"Ask Joe how present amount of overtime in his department compares to last year." "Find out about downtime on the die-casting machine." "Check Joe's attitude toward basic workability of the new process." To meet this last objective, which touches on a sensitive area, the executive might write out a key question, perhaps along the following lines:

"Joe, you've had a good deal of experience now on this new equipment. Would you say that on the whole it's going to work out well in the long run, or do you think we're going to continue to have problems with it? (What problems does he foresee?)"

Such an outline will help the interviewer get what he wants from the interview as efficiently as possible.

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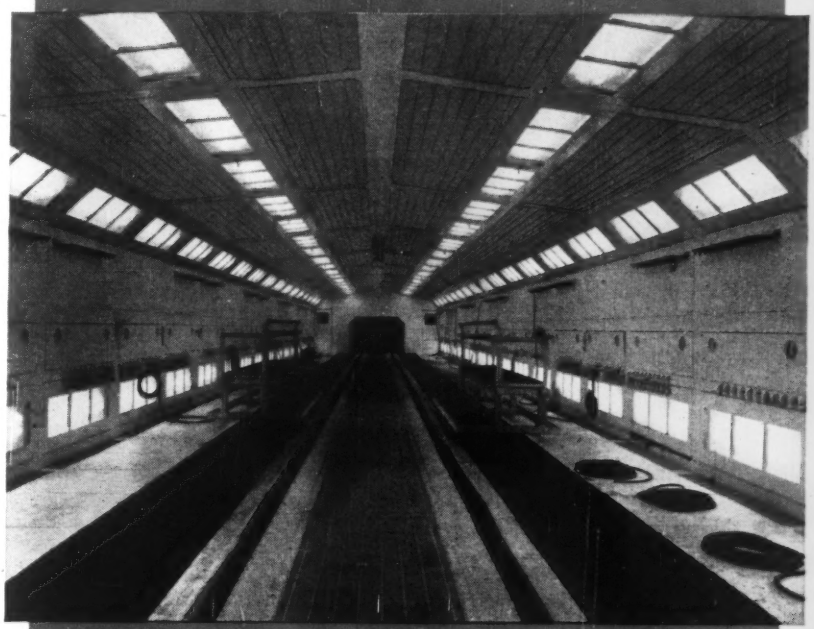

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tives and has written out in advance at least some of the key interview questions. If he does a reasonably good job of relating the interview process to the subordinate's goals and establishing a rewarding psychological atmosphere, can he be confident that the information he gets will be complete and accurate? Unfortunately, not quite. His chances of getting adequate information are vastly improved, but there is still the problem of bias in the interview.

How Bias Slips In

"Bias" means anything the interviewer does (or fails to do) that results in inaccurate information. It may enter the interview in a variety of ways. One of the most common is in the way questions are worded.

Suppose, in the discussion of the die-casting process, the executive says: "You aren't suggesting that we never should have put in that new equipment, are you?"

This question presents, in a ridiculously extreme form, an example of biased wording. The language, reflecting the executive's *own* fears and emotions about production difficulty, clearly indicates the answer the prudent subordinate had better give. The chances of obtaining the reassuring response, "Oh no, boss, I'm not suggesting that at all," have been artificially increased.

With appropriate advance planning, the executive will probably have fewer difficulties from biased questions than he will from handling the interaction with the subordinate *after* a key question has been asked. Few subordinates spontaneously give answers that are complete and on target. They are much more likely to wander from the objectives or give only a partial answer. When the interviewer tries to redirect the interview to the objective or to encourage further response, the dangers of bias become particularly acute. The interviewer, therefore, needs skills and insights enabling him to use an informal kind of probing that maintains the motivation to communicate and focuses the respondent's conversation on the objectives of the interview—without biasing the responses.

Let us look into the office of the executive vice president of a company about to open a new plant. A conversation is in progress between the vice president and one of his

assistants, Bill Cranston. Bill says:

"Mr. Todd, I really came in to talk to you about something that's pretty important to me. I've been here now for over ten years, as you know, and I want to talk to you about the job of managing that new plant in Southfield. I want a job with more responsibility, and I feel that that's a job I can really handle."

The vice president has not yet made a decision about the new manager for the plant in Southfield, and is considering Bill along with other eligible candidates. What the vice president wants to know is how well motivated Bill is to make a go of this job, how well he would work out in the position, and why he wants it.

Alternative Tactics

If these are his objectives, how should the vice president respond to Bill's statement? Consider several possible responses:

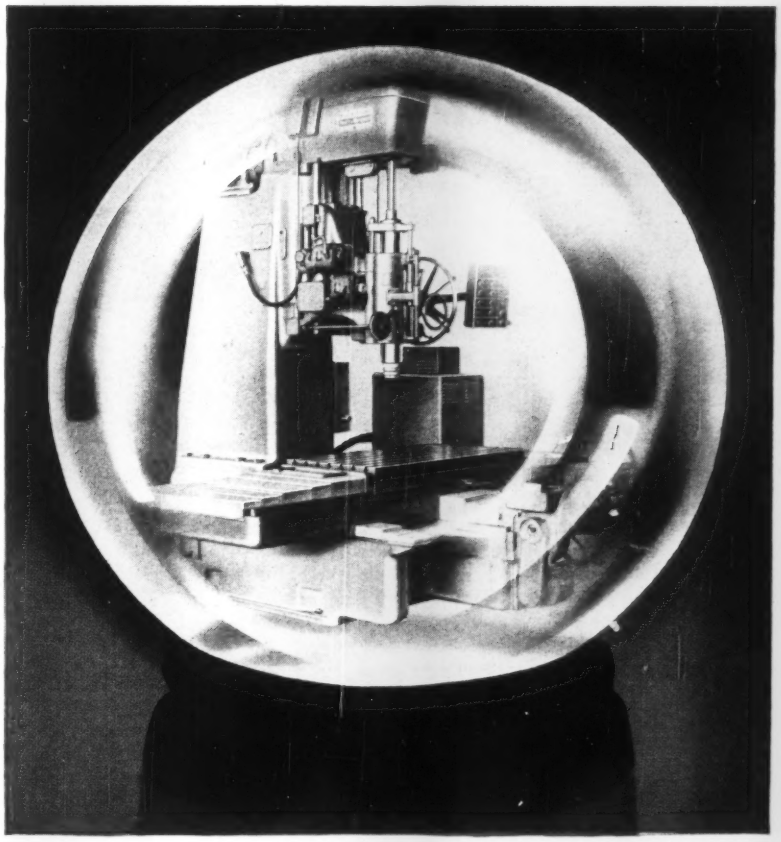
1. "Bill, that job at the new plant is going to take a man who is especially good at working with people, organizing them into a team. I'm convinced that that part of the managerial job is going to be more important than the technical side of the work. How do you feel you stack up on the human relations side?"

2. "Bill, I'm beginning to think that every man on my staff is after that job. Of course, it's going to pay an excellent salary and that alone makes it a real plum, but five men have been in here in the last two days telling me how well they could do that job. What makes you think that you can handle it, and why do you want it?"

3. "Bill, I'm glad you came in to talk with me about that Southfield job. Tell me, what are some of the things that have led you to become interested in it?"

4. "Well, Bill, you're one of the men who might be in line for that job. As a matter of fact, you've done very well in your present assignment, particularly in handling the men under you. And the new job is really going to take a great deal of that kind of human relations skill. Tell me, what is it about that situation that makes it look attractive to you?"

Any one of these four responses by the executive sounds reasonable, but only the third does an acceptable job. Response No. 1 is inade-



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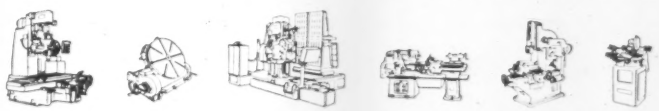

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quate because it tells Cranston that Mr. Todd considers human relations skills the key qualification for the job. Cranston has, in effect, been instructed to emphasize his strengths and aptitudes for this aspect of the work, whether or not he actually possesses them.

A Wrong Note

No. 2 is more balanced. The question with which the response concludes is not in itself biased, although the fact that it consists of two parts may make it difficult to answer. The real problem with No. 2 is the unfortunate psychological climate it establishes. The manner and language is unencouraging, almost aggressive. The vice president comes close to impugning the motives of all those interested in the job. This puts the subordinate in a defensive frame of mind, and he is unlikely to speak freely or frankly.

No. 3 is a satisfactory response. It is a low-pressure bid for information and offers no clues to the aspects of the work or the candidate aptitudes that are of special interest to the executive. It is also encouraging. The brief expression of pleasure at the conversation contributes to the friendly climate necessary to obtain accurate information. It seems likely that if Mr. Todd continues and builds on this beginning, he will get the information he needs to evaluate his subordinate for the new job.

No. 4 looks good superficially, but it overdoes the job. In an attempt to build up a friendly atmosphere, the vice president appears to commit himself in an inappropriate way. The subordinate might well conclude that he is the preferred candidate for the position. His subsequent reactions if he fails to get it are easy to predict. Another serious fault in this probe is that it tells the respondent what the appropriate answer should be. While Responses 1 and 4 are very different in the kind of emotional climate which they create, they are almost equally likely to develop biased information because of the cues they provide.

The technique of developing adequate and unbiased information is called "controlled nondirective probing." This technique is "supportive," and so motivates the respondent to report fully and freely. It controls the interaction by focusing it on the objectives, eliminating irrelevant material. Instead of suggesting responses, it leaves the development of the topic to the respondent.

Probing for Information

Controlled nondirective probing is a general approach that cannot be reduced to a number of stock phrases. But it lies at the heart of successful executive interviewing, as the following example will show.

Fred Patterson, a supervisor in the accounting department, has just entered the office of the president of the Blackstone Manufacturing Company. Ordinarily, Patterson does not report directly to the president but to the company controller. Patterson begins the conversation:

Patterson: Mr. Smith, I wanted to talk with you about my job. . .

Smith: Fine, Fred, I'll be glad to talk with you. What did you have in mind?

Patterson: Well, what I really wanted to talk about was the possibilities of promotion. I've been with the company a long while, you know, and on my present job for some time.

Smith: Um-hum.

Patterson: As a matter of fact, I figured that I was due for a promotion before . . . well . . . before now. [Pause]

Smith: I see. Fred, can you tell me a little more about that?

Patterson: Well, a couple years ago when John Green left I thought I was going to get his job.

Smith: I see.

Patterson: But I didn't. . .

Smith: [Waits attentively]

Patterson: [continuing] . . . and then when this new accounting opening came up, I thought for sure I'd get it.

Smith: Um-hum.

Patterson: And the first thing I know, Bill Johnston got the job instead.

Smith: Well, I can see how this would bother you, Fred.

Patterson: Yeah, it sure did. When Bill's appointment was announced, I really got mad!

Smith: I can understand that, Fred.

Patterson: I'm beginning to think I don't understand what's going on around here.

Smith: And how *do* you see it, Fred?

Patterson: Well, frankly, it looks to me as if someone has it in for me.

Smith: How do you mean?

Patterson: Well, two jobs that I was in line for went to someone else, and I know I could have handled either of them.

Up to this point the interview has proceeded quite satisfactorily. From a noncommittal beginning the president has been able to develop an impression of some of the things that are bothering Patterson. This has been done primarily by reliance on three unbiased probing devices—the skilful use of pauses, the use of short phrases of assent or understanding, and, where necessary, simple requests for additional information. Toward the end of the inter-

change, however, the subordinate has hinted at material that appears to be too sensitive for him to talk about it freely. He has said that "someone has it in" for him, but he has not followed up this lead. Mr. Smith now faces the problem of getting Patterson to speak more frankly about who or what he believes is blocking his advancement in the company. This will require a more potent probing device. The president's behavior so far has been so supportive and non-threatening that he now feels he can afford the risk of going rather directly for the information required.

Smith: It looks to you as though someone were standing in your way?

Patterson: It sure does. I know I'm as good as either of those other two fellows, but I'm not sure that everyone agrees.

Smith: You feel that someone has questions about you then?

Patterson: Well. . . You know, I've tried to talk to my boss about this, but I just don't seem to get anywhere with him. Several times I've tried to get information from him and I just don't get any place.

Smith: You're wondering how he feels?

Patterson: Yeah. I think my own boss may be the one that's blocking me.

Smith: I can see that this would really bother you.

Patterson: It does, and I'm wondering whether I ought to look for another job if I'm not going to get anywhere around here. I just don't know where I stand.

Smith: And finding out how *I* feel about you would help?

Patterson: It would help a lot. I really need to know what my chances are. There's no use just doing the same job if I'm not going to get anywhere.

In this part of the interview the president's probes consist mainly of summarizing or reflecting the feeling that the subordinate is expressing. This is a powerful technique for stimulating further communication. The summaries used by Mr. Smith in the previous example are noncritical; they do not evaluate or judge Patterson. The effect of this neutrality is to free the subordinate from fear of reprisal or criticism. He feels no need to hide information or to cover up. This is the essence of a supportive atmosphere.

Understanding and Objectivity

Summarizing serves another purpose: It demonstrates to the subordinate that he is communicating successfully, that he is being understood. Therefore, it stimulates fur-

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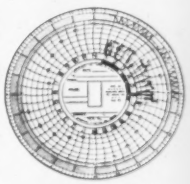

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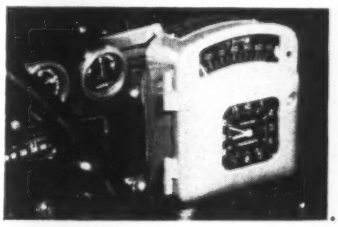

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We operate_____ Vehicles

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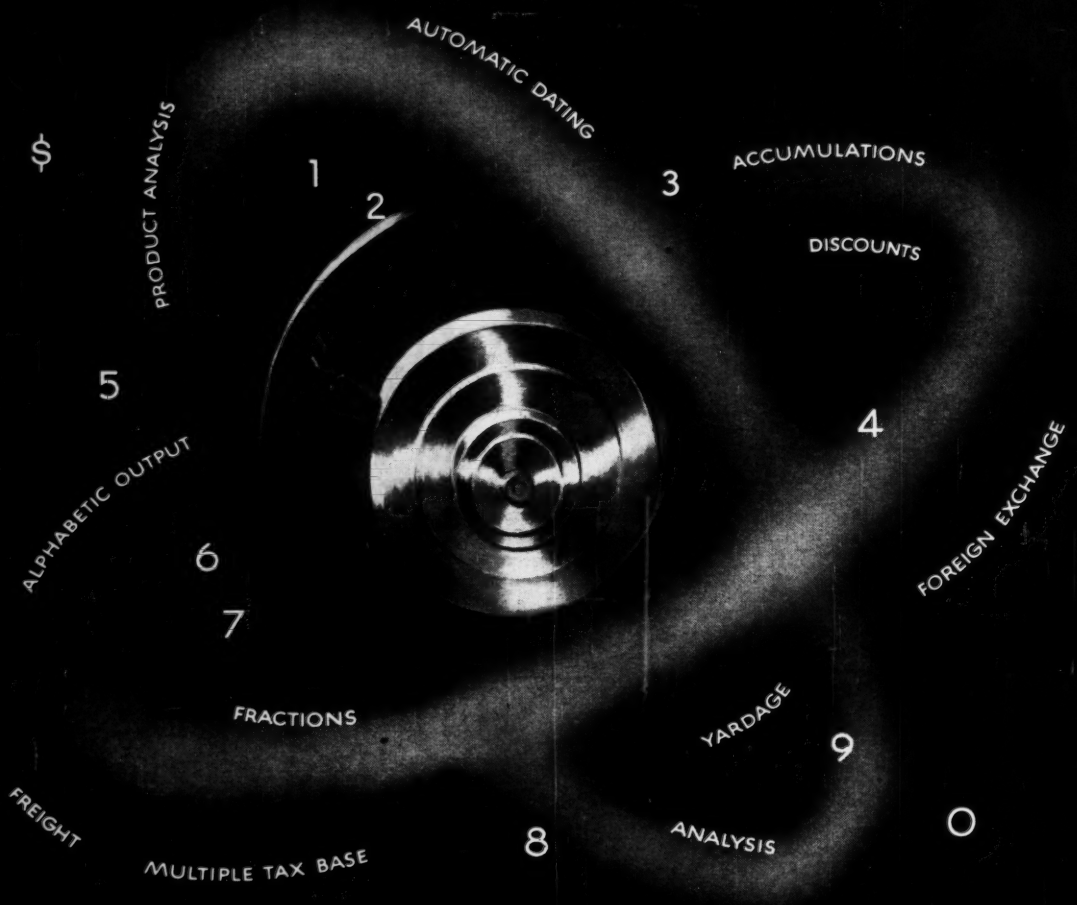

New MONROBOT® *IX*

Here is an all-electronic computer at a price near $10,000 which, even in these days of scientific triumph, represents a milestone in the computation art.

Truly to comprehend this machine you must see it in action . . . and you can. With it, you fly through invoicing electronically; fractions without decimal equivalents, discounts without conversions, end-of-the-day totals on command, and even in foreign currency.

Then call or write the Accounting Machine Division, Monroe Calculating Machine Company, Orange, N. J., to learn how electronics can build greater profit for you.

MONROE

MONROBOT *IX* WAS SHOWN AT THE NEW YORK BUSINESS SHOW

ther communication. Finally, it fulfils the requirement of objectivity, or lack of bias. Since it merely reflects what the subordinate has said, it doesn't suggest responses or lead him to talk about particular topics.

In all this, two prime requirements for successful interviewing have emerged. First, the subordinate must be motivated to communicate to his superior. Second, the superior must focus the content of the communication on the specific objectives of the interview. Each of his questions or probe should contribute to meeting both these requirements.

Unfortunately, nobody acquires interviewing skills from reading an article. Like the neophyte golfer who has faithfully memorized Ben Hogan's instructions and diagrams, the executive-interviewer will find that playing the interviewing game is both more difficult and more satisfying than reading about it. Like the golfer, also, he will have a need for trial-and-error learning to supplement his reading, for coaching and observation by more experienced players, and for the opportunity to observe and criticize his own techniques. It is particularly useful for any executive to reconstruct after each interview the moments that went well, to note mentally the places at which he was unsuccessful, and to reconsider the questions or probes that were responsible for his failures and successes.

A Matter of "Style"

Although interviewing skill can make a substantial contribution to successful management, there is an important limitation to be considered. Earlier this article noted the difficulties of the executive's position, in which he must be both information-getter and decision-maker. This dual objective, which is difficult to handle under the best of circumstances, becomes almost unattainable for the executive whose characteristic leadership "style" is completely directive and autocratic. If such an executive tries to communicate permissiveness and supportiveness during an interview, he will appear inconsistent and insincere to his subordinates. On the other hand, the executive whose approach to his leadership role is compatible with the techniques of interviewing will discover that he has a management tool of the utmost value. END

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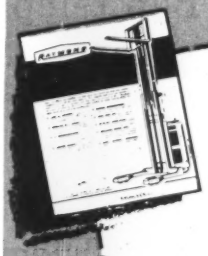

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Elevate loads in low ceiling areas without increasing truck height

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Due to short length and patented off-set drive wheel*

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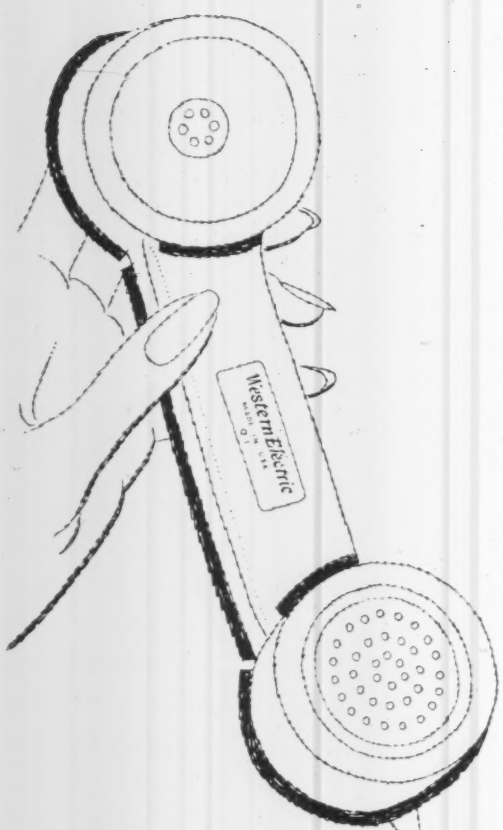

Which came first:
Western Electric or
the Bell telephone
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Western Electric. We started in 1869 as a manufacturer of telegraph equipment, seven years before the telephone was invented. We joined the Bell System in 1882 to meet its need for reliable telephone equipment.

Western Electric

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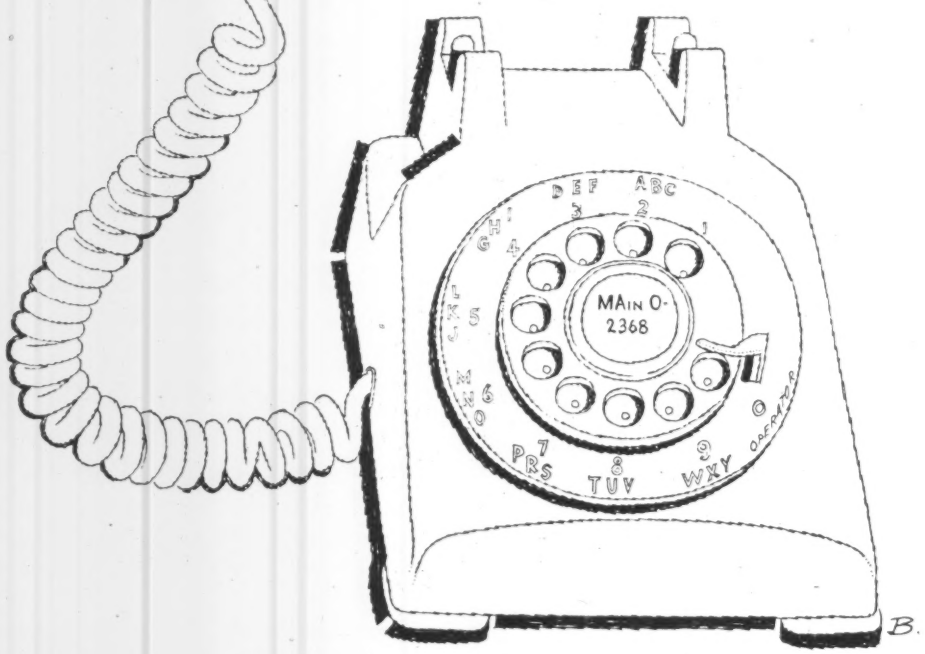

Short-term financing:

HAVE YOU THOUGHT OF COMMERCIAL PAPER?

ALLEN ROGERS

Because of today's tight money situation, many companies are seeking new sources of funds. Here's one that most concerns have never thought of. And in certain cases it may be the most economical.

"IF YOU DON'T LIKE IT, don't worry about it. It's going to change."

The wit who made this observation was referring to the New England weather, but he might as well have been talking about the money market. Changes in interest rates, short-term vs. long-term borrowing, sources of funds are daily problems for the financial officer, and today they are likely to seem especially acute.

As financial manager of your company you may be overlooking an excellent source of supplementary short-term funds: commercial paper.

"Commercial paper" generally refers to commercial credit instruments—such as promissory notes, drafts, bills of exchange, bank acceptances, and trade acceptances—which are issued or drawn by individuals or business concerns to obtain funds to finance some phase of the production or distribution of goods.

That is the broad meaning. What we are talking about here, however, is more specific: "commercial paper" in the sense of short-term, self-liquidating notes in a wide variety of fields. Such notes are also referred to as "open market paper."

Market Practice

Commercial paper is sold with maturities from 30 to 270 days. (The latter limitation is to enable the borrower to remain free from registration.) The phrase "self-liquidating" simply means that the open market is a source of temporary funds to finance seasonal peaks and other working capital requirements. (Finance companies, of course, are an exception to this rule, since they characteristically have short-term notes outstanding at all times.) For example, many of the large food processors—such as Campbell Soup Company, Stokely-Van Camp, and H. J. Heinz Company—borrow substantially to finance their fruit and vegetable purchases during the late Summer and early Autumn months.

THE AUTHOR • Allen Rogers has been employed by National Credit Office since graduating from Bowdoin in 1931 except for a period of three and one-half years in the Army in World War II. He served the last two of those years as financial reviewer for the Price Adjustment Board of the Corps of Engineers. Since 1946 he has headed National Credit's bank service division, which prepares reports and assigns classifications on all commercial paper borrowers.

Does commercial paper borrowing replace bank loans? Definitely not. If for any reason you couldn't get adequate bank lines of credit, you would not be eligible for open market borrowing. In fact, one of the generally accepted rules of thumb is that bank lines should be available to cover the commercial paper. It is advisable to consult your banks when contemplating open market borrowings if you are using bank loans in a substantial amount. You can then get in touch with the dealers. (These include Goldman, Sachs & Co., Weil, Pearson & Co., Lahey Fargo & Co., A. G. Becker & Co., Inc., and F. S. Mosely & Co., all in New York City; Ashwell & Co., Chicago; and Piper, Jaffray & Hopwood, Minneapolis.)

Will your company qualify as a borrower? The commercial paper market is highly selective. Not a nickel has been lost to commercial paper buyers since 1935. Along with steady tightening of the money market, the commercial paper market has become more and more selective. In 1956 a classification of borrowers according to net worth showed the following:

NET WORTH	NUMBER	PERCENTAGE
$250,000 to $1,000,000	10	2.8
$1,000,001 to $2,500,000	64	17.7
$2,500,001 to $5,000,000	62	17.1
$5,000,001 to $25,000,000	151	41.7
Over $25,000,000	75	20.7

The dealers are careful analysts and will give you an honest appraisal, and the standing of your note is analyzed by reporting agencies. Your dealer may tell you that he would be confident he could sell your notes under different money market conditions, or possibly after some further growth has taken place.

The net worth figures above indicate quite a number of concerns in the $2.5 million and under group. But it must be remembered that these, for the most part, have been borrowing on the open market for years, and their names are established. Size, of course, is by no means the sole criterion. Other factors considered include operating record, dividend policies, industry conditions in the field, relative standing in

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the industry, and general reputation.

The open market is not a substitute for bank loans, but merely supplements short-term borrowings. In the finance field, commercial paper generally ranges between 15 and 25 per cent of total short-term notes payable. In non-finance fields, up to 50 per cent or more of short-term needs are met by commercial paper. An even higher percentage is frequently borrowed by the direct placement finance companies.

Making the Arrangements

What are the mechanics involved? The form of the note, arrangements for payments, and so on, are nearly identical to the system you use in borrowing from a bank. The dealer may ask for several notes of varying sizes. For example, on a $2 million loan, you will probably be asked to prepare notes ranging from $5,000 to $100,000. Incidentally, note that the word "dealer" is used. The dealers make an outright purchase and give you your money immediately, though they are often mistakenly referred to as "brokers."

Holders of open-market notes are under no obligation to renew the note at maturity. Ordinarily, however, the broker can arrange the placement of new notes to other buyers if the old holders do not wish to renew.

Who buys commercial paper? Historically, small city and country banks have been the principal purchasers. This has enabled them to lend money to large, well-established organizations and given them an excellent liquid asset.

Other Customers

In recent years the paper of the large finance companies, in particular, has found its way into non-bank hands. A number of large industrial and utility companies with surplus cash are buying it in substantial amounts. Other outlets are pension funds, college funds, insurance companies, charitable institutions, state governments, and individual purchasers.

Eight of the largest finance companies—General Motors Acceptance Corporation, Commercial Credit Company, Commercial Investment Trust, General Electric Credit, Associates Investment Company, Sears, Roebuck Acceptance Company, General Finance Company, and Inter-

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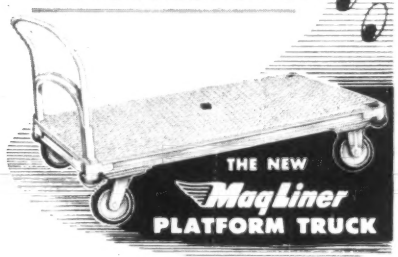

THE TRUCK THAT HAS EVERYTHING
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It's the load that pays the freight . . . nothing else! Don't penalize your floor truck operations with the needless burden of excess weight. Now, in answer to popular demand, Magline—*America's oldest and largest exclusive manufacturer of magnesium dock boards, hand trucks, and materials handling equipment*—introduces this new, magnesium-light, magnesium-strong, 4-wheel platform truck. Capacity rated to handle loads up to ½ ton, it weighs in at a mere 49 pounds . . . lighter than similar equipment by as much as 75%! Thirty standard models to choose from. Before you buy platform trucks for any purpose—write for Information Bulletin No. 151.

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national Harvester Credit Corporation—place their notes directly.

Approximately 340 companies were currently using the open market in September of this year. These included department stores, textile mills, food processors, flour mills, and cotton oil companies, to name a few.

What are the rates? Commercial paper rates have increased along with those of other borrowing instruments. The selling rate generally runs about one-half to three-quarters of a percentage point above the short-term Treasury bills, which are currently yielding about 3.5 per cent. Historically, commercial paper rates run somewhat below the bank prime rate, which at the present time is 4.5 per cent. Incidentally, in talking of bank interest rates, it must be borne in mind that compensating balances of approximately 20 per cent are generally required, which naturally increases the actual money cost. In addition to providing some interest cost saving, the use of the open market constitutes excellent financial advertising. If at some future date public issuance of some form of securities is contemplated, the standing of the commercial paper borrower has already been quite well established in the financial community.

How It Began

Commercial paper dates back to the early history of this country. In 1837, rates on commercial paper were being quoted in the *Financial Register of the United States*, and the expression "prime paper" was used in connection with quotations in 1846. In 1850 a regular system of "Street" discounts and a classification of paper in relation to these regular rates was introduced.

The dollar amount of outstanding open market paper last July was at a new high of $2.781 billion. Excluding the eight large direct sellers, the average borrowing ranged from $1 million to $5 million. And the average borrowing has increased quite steadily. In 1920 around 4,000 companies were borrowing on the open market for a total of $1.296 billion.

Becoming a commercial paper borrower does not mean that you will be swamped with requests for information. The dealer provides ample data for the purchaser, and credit reporting agencies prepare special reports as an independent source of analysis and classification. END

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Financial assistance in New York State means:

Availability of the world's greatest investment firms with a continuing interest in the State's industrial progress.

Accessibility of financing throughout the State by *local* institutions.

Co-operation in obtaining suitable funds through the New York Business Development Corporation—a privately financed and managed organization chartered by the State Legislature to assist qualified new or expanding enterprises within or coming into the State.

★

Before you decide on a new plant, what specific financing data do you need?

Our job is to know where capital is available, and to put you in touch with proper sources of mortgage money or working capital for your operations in New York State.

★

Financing is only one of your factors. What about

... markets ... transportation
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The New York State Department of Commerce stands ready with a professional, long-experienced staff to give you a tailor-made plant location survey covering any New York State community.

Let us answer your questions. Write for "Industrial Location Services," a free booklet that tells what we can do for you. Send your request to me at Room 571, 112 State Street, Albany 7.

EDWARD T. DICKINSON
Commissioner of Commerce

ARE YOU OVER-ORGANIZED?

continued from page 40

terlock. (Assistants who aid in coordinating are not included in the span.)

However, the writer has seen a span of eight work without difficulty. An outstanding example was a huge manufacturing subsidiary of a world-wide communications empire. This concern's output of electrical and electronic equipment was on the order of $150 million annually. Yet the president of this company rigidly limited to eight the number of key executives reporting to him. As changing circumstances demanded additions and changes in organization units, he saw to it that proper groupings always kept his own span of control to eight, even if new tiers of authority had to be created.

Note, however, the key word often slighted in discussions of span: *interlocking*. Where functions are *not* interdependent, the span can increase greatly. In the manufacturing company cited, basic corporate planning, economic decisions, and world-wide allocation of activities were largely made at the parent corporate level. Had this not been the case, the span of eight could safely have been broadened by the addition of one or more special corporate planning units, whose activities would not have interlocked with daily operating problems.

Combining Departments for Control

The troubles that stem from lack of control when the span is unwieldy need hardly be dwelt upon. Wasteful duplication, interference, work at cross purposes, buck-passing, empire-building, and sheer boondoggling can proliferate amazingly.

The answer is to apply a basic concept in organization structure: combining subdivisions for most efficient direction and control. Thus, separate units for new-company acquisition and new-product search could conceivably be brought under a single executive in charge of corporate planning. In many companies a vice president for marketing has been placed in charge of market research and sales. A company economist need not necessarily report to the top; this function, together with management research (keeping up with advanced thinking: linear pro-

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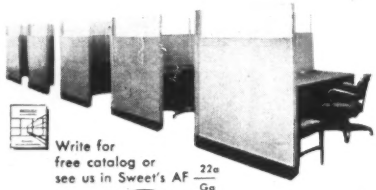
Q. When does 15% "equal" 100%?

A. In acoustical walls: Amazing fact! Walls with 15% exposed acoustical surface absorb sound equally as well as if with 100% exposed acoustical surface. That's why

SOUNDEX PARTITIONS* soak up office noise like blotters soak up ink.

*(surface area, 15% perforations exposing acoustical spun glass core.)



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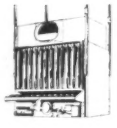

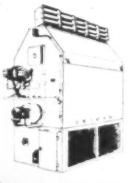

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Look for Reznor under "Heaters-Unit" in the Yellow Pages

REZNOR
WORLD'S LARGEST-SELLING DIRECT-FIRED UNIT HEATERS

Reznor Mfg. Co., 80 Union St., Mercer, Pa.

gramming, operations research, and so on) can also be grouped under the head of corporate planning. Or the economist could report to the chief financial officer, management research to the executive for operations.

3. Are we over-functionalized?

The larger the company, the more it can afford (and indeed is required) to functionalize. It must have specialists heading up a wide variety of line, staff-service, and staff-advisory functions. In smaller companies, key executives must often double in brass and assume responsibilities which, under standard organizational practice for larger concerns, would call for separate rectangles on an organization chart. Purchasing may be combined with office management, or the latter may be made part of accounting, for example.

Implicit in this is an obvious rule on special staff functions. The burden of proof, in terms of tangible accomplishments, is on them. They must demonstrate the need for their existence in the first place, and then for their size. Some hard-boiled subquestions should be applied here:

Are we paying for fifth wheels? Are our centralized staff functions duplicating work in counterpart organizations in operating divisions? If so, they may be hindering healthy development of the counterpart organization units. Or, in decentralized operations, the very remoteness of the central staff units may make their work unrealistic and create delay in decisions.

Are our operating executives using staff units as crutches? This may easily be true in training work—direct supervision should never be allowed to escape basic responsibility for training—and in expediting. In one company, the weakness of the chief manufacturing executive led to the creation of a fairly elaborate expediting activity to effect proper liaison between sales, research, and manufacturing. When a strong executive replaced him, there was no need for this crutch.

Do we have expensive staff experts on our backs? Will selective use of outside consulting services cut down on staff-department payroll? Even at high per diem rates, spot use of such services for market

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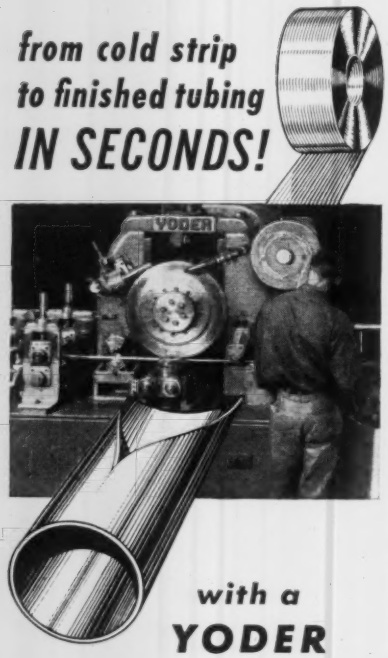

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The Yoder Type-M Mill shown above is operated by one man and a helper. Coiled strip on this mill is continuously cold-roll formed, welded and cut to required lengths in a matter of seconds . . . at speeds up to 340 f.p.m. The quality of the resulting tube is *constantly* better than the requirements of commercial standards. This is one of many reasons why manufacturers and users of tubing the world over are using more Yoder mills than all other makes combined.

If your business requires pipe and tubing, ferrous or non-ferrous, in sizes from ¼-inch up to 26-inch diameter, Yoder can supply the engineering service and machines to produce it faster and better for less! For complete details, write for the Yoder Tube Mill Manual. It's yours for the asking.

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studies, facilities surveys, incentive installations, and the like is often economical in the long run.

Are we burying operating men in paperwork? Staff units established for control inevitably add to paperwork. (Dr. Luther Gulick, commenting on paperwork in public administration, aptly alluded to our "carboniferous and neo-lithographic age.")

It is nonsense, of course, to expect scientific controls without records and reports. For example, a "standard minute" incentive system of direct labor control obviously means more reporting than daywork. But it can bring a saving in direct-labor payroll of 30 per cent—well worth some added time clerks. The ratio of indirect to direct labor can well rise if over-all efficiency also rises.

Constant vigilance is the only way to prevent unnecessary paperwork. When was the last analysis of reports made? Are "key" reports too frequent—or, even worse, too late? Or too involved? Are they really used? And one might add a jaundiced caution: Mechanizing office operations often does not cut costs. It simply provides many more reports. Be sure they are needed.

Are staff units "boondoggling"? Staff units, once created, can too easily begin to grind on and on, with self-perpetuating energy. A publishing company producing business and trade magazines set up a central marketing information unit. The idea was to provide the magazines with ammunition to use in selling advertising space. Soon it became practically impossible to get "quickie" answers to "quickie" questions. Even innocent queries resulted in elaborate surveys, with supplementary information streaming in long after the need was past. The unit was a quick casualty at the next business decline.

4. Are we "committee-happy"?

Next to television commercials, committees are undoubtedly the greatest man-made time consumers. The shortcomings of committees are known to all—but here are some penetrating sub-questions:

How many formal committees do we have compared to a year ago? Two years ago?

How many formal committees have become inactive without ever having been officially dissolved?

REAL LOW COST MATERIALS HANDLING

A pair of 1500 lb. capacity Walkie-Worklifters with 108" lift stacking pallets at Minneapolis Honeywell Regulator Co., Chicago Plant. There are thirty-nine other fork or platform models with lifts of 58" to 120" and capacities of 1000 lbs. to 2000 lbs. Priced from $1250.00 to $2500.00. Walkie-Worklifters can be used in narrow aisles and on light capacity elevators. Any employee can operate a Walkie-Worklifter without special training. *Write for details or see Sweets Plant Engineering File 1A/EC.* Economy Engineering Company, 4516 West Lake Street, Chicago 24, Illinois.

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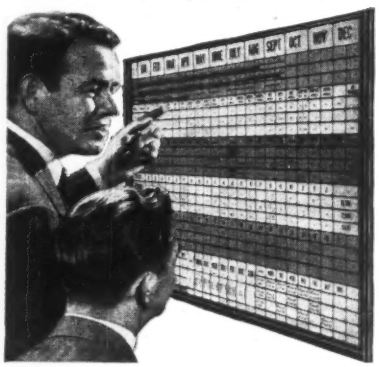

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5. Are we going overboard on some activities?

Over-organization is usually not a matter of uniform "overpopulation" in an enterprise. It is rather a condition of imbalance, and staff and service units are not necessarily the only ones at fault. There is the danger of going overboard even where the basic need for the activity is never in question. This can occur in any function, but there is one area where, under current conditions, the problem is most likely to be acute.

In recent years, the obvious need for new-product activity has brought with it a parallel hazard: Research and developmental expenses may get out of hand. In durables, it takes from five to seven years to bring an idea from a sketch on the back of an old envelope to the finished product ready for the market. Thus, this part of the organization problem is less amenable to straight-forward year-by-year evaluation than are other activities. Evaluation is also hampered by the difficulty of forecasting costs of creative effort where a solution is confidently expected but the approach is not yet known. A further complicating factor is the payroll costs and delays resulting from the shortage of engineering talent. Finally, special problems of business judgment are created when the language of the scientists be-

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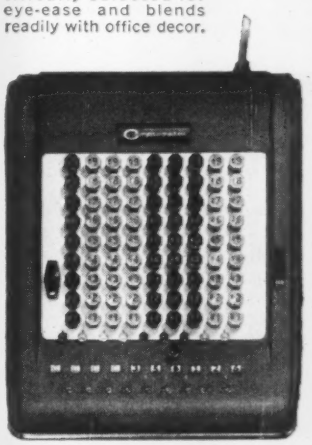

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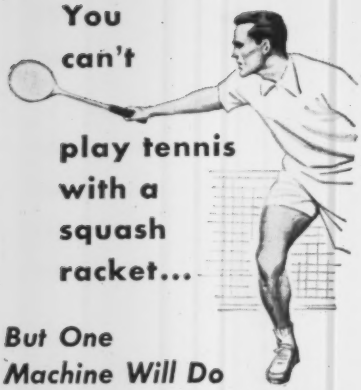

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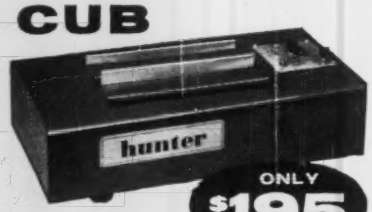

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comes increasingly difficult for the purse-string authority to understand.

Control of product research and development expense has been widely discussed at management and engineering society gatherings, but the whole matter is still much more in the realm of intuition than of scientific management. Still, some obvious sub-questions should be pursued:

Are we organized to "think through" proposed products from a marketing angle, before they become research projects? Many an expensive skeleton in the corporate closet is due to an oversight here. There is a strange propensity to embark on programs involving millions of dollars of laboratory work, yet to begrudge $25,000 or $30,000 for preliminary market analysis.

How good is communication between sales and research? Is there a formal procedure for developing specifications?

How have our research expenditures related to total sales over the years? Are we putting more pressure on R&D, or less, than our important competitors?

What portion of our current sales income is from products not in existence ten years ago? What can we project in the future?

Is research an empire unto itself? How does it actually report to management, and how is project status evaluated?

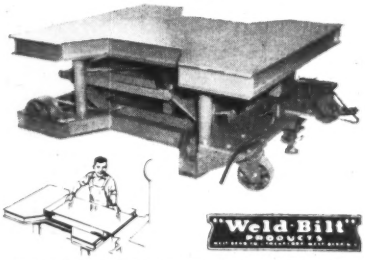
What is the record of actual against budgeted costs of research activities over the past five years? How does this reflect on the administrative direction accorded research?

So much for the review of the "large picture"—the examination of objectives and basic alignments. Here are some questions that apply to any organization unit—line, staff, central headquarters, or branch:

6. Do we have too many chiefs and not enough Indians?

Too often managements, especially in family-owned companies, have adopted a "humane" policy of rarely, if ever, dismissing an executive. If a man is obviously no longer doing an adequate job, they hire an assistant who in fact takes over the department reins, and a duplication results. This is all very well for a while. But these things pile up, and when a company experiences a run

Weld-Bilt Recessed Lift Table Design



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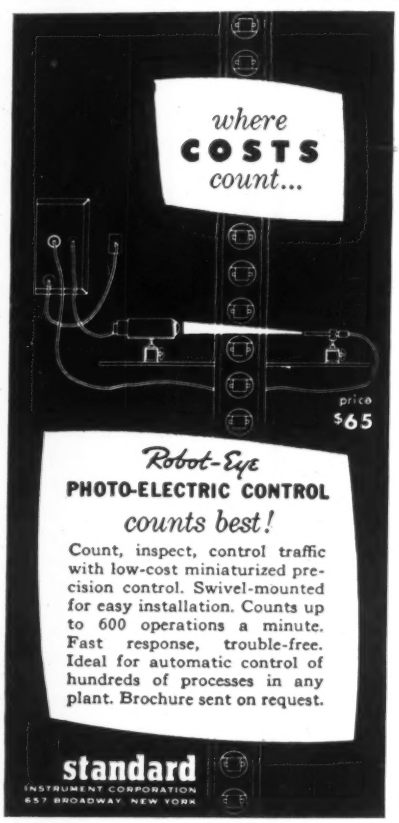
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of red ink, dismissal becomes far more difficult than it would have been had the problem been squarely faced earlier. Again, some hard-boiled sub-questions:

Do we have too many "assistant" or "assistant to" titles?

Do we have span of control as narrow as two, or even one? The latter may, however, be justified in cases where the principal should be largely out in the trade while the second-in-command carries on the administrative operation.

Should we have a mandatory retirement age?

7. Do we have too many Indians?

In most industrial and commercial enterprises today, labor is still the largest controllable item of cost. If, after company objectives and organizational structure have been analyzed, it appears that existing units are justified and properly placed in the organization structure, the next obvious stage in analysis is to be sure that organization units themselves are economically manned.

As a rule, costs in the factory are susceptible to much closer analysis and control than the expenses of units in selling and general administration. Consequently, many companies can point to figures on production costs which are accurate and satisfactory, with variances showing up promptly for attention. But concerns that have not examined unit costs recently—especially where piece-work rates and other incentive standards are involved—would be surprised at the savings which can be effected in direct-labor costs. The key is performance standards, such as the standard minute or standard hour systems. These permit the setting of objective standards that even highly organized labor can usually be persuaded to support.

It should be emphasized that the 20 to 30 per cent savings in labor costs that may be achieved are not brought about by unwarranted speed-ups or crude rate-cutting. They are made possible by a scientific analysis of what employees are actually doing, elimination of excess motions and idle time, improvement in work flow, and reductions in travel and handling time. Experience has shown that performance standards can be set for indirect labor,

Another
Wayne Cook
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Sale Begins
Tuesday, December 10, 1957
and continues until sold.

Bidder Registration begins Monday, December 9, 1957.

Auction will be "Auditorium" type with all properties being sold from catalog. All prospective bidders must make inspection of properties offered, prior to sale date.
Inspection will begin November 18 and continue until time of Sale. Complete catalogs will be available at site during inspection period.

The E. A. Stewart Lumber Co., Inc., Texarkana, Texas, is quitting the Hardwood Finishing Business. They have commissioned us to sell at public auction the complete, modern, fire-proof Finishing Plant, approximately 17,000 acres of timber land in Red River County, Texas, and a large amount of equipment and machinery. Everything will be sold to the highest bidder without minimum or reservation.

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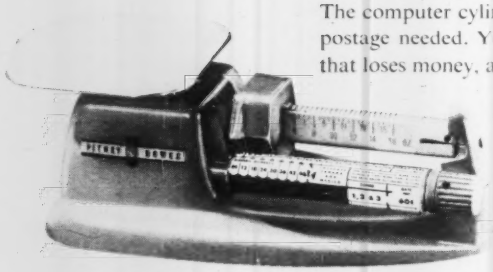

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such as maintenance, and for other operations not usually considered suited to this treatment, such as sales clerking.

It is also safe to say that in overhead and service units a concentrated activity-unit analysis, by probing into every manning need, can yield respectable savings in manpower. For example, stenographic pools, as against too many private secretaries or stenographers, may greatly reduce womanpower needs.

Saving on Frills

Where firm directives insist, many a frill can be eliminated. A general tightening up can not only leave departmental effectiveness intact, but actually improve efficiency. In just a few months of analysis, pilot studies of this sort in five large municipal departments of the City of New York uncovered manpower and procedure savings of almost $2.5 million —over 7.5 per cent of the payroll involved. These substantial savings were pinpointed by purely high-spot studies. Some sub-questions:

Are we applying the concept of performance standards as widely as possible?

Are we properly organized to keep the standards up to date and to analyze results? It is certainly penny-wise and pound-foolish to skimp on industrial engineering while controllable manpower wastes continue by default.

Are we taking full advantage of incentives? Incentive programs can be undertaken with full union support, once the essential fairness of the program is understood.

Do we tend to solve a problem by more people rather than more push?

When does a service become a frill?

Is "no overtime" a good thing? It may be well to end on a somewhat hard-boiled note—with full awareness of today's need for good human relations in business. Obviously, good supervision will strive to keep down overhead. But too many offices, in the writer's view, are run on a strict 9-to-5 basis. Only under the most ideal situation will workflow be strictly uniform. Without vigilance, there will be a tendency to man for a workload that is closer to peak than to average. "No overtime ever" is not a motto that will insure against over-organization! END

ARE YOU OVERPAYING YOUR SALESMEN?

ALSO: *New developments in transportation*

ARE YOUR SALESMEN overpaid? According to Professor Kenneth R. Davis of Dartmouth's Amos Tuck School of Business Administration, salesmen's salaries in many companies are unrealistically high and should be lowered.

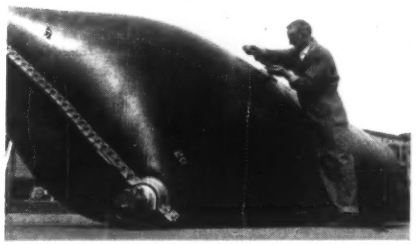
But he hasn't anything against salesmen as a group, Professor Davis makes clear. He says: "I do not wish to imply that salesmen are necessarily over-compensated relative to others in the labor-force—engineers, carpenters, doctors, accountants, or bellhops—but rather that the salesmen of Company A may well be over-compensated relative to salesmen of Company B when both companies are operating under the same selling conditions."

How does such a situation develop? Professor Davis says it can be traced to four distinct causes:

- Management uncertainty about the real worth of each salesman
- The fear that particular salesmen have become indispensable
- Plain lax practices in this area of wage administration
- Sales managers' bias in favor of high rewards for their sales staffs.

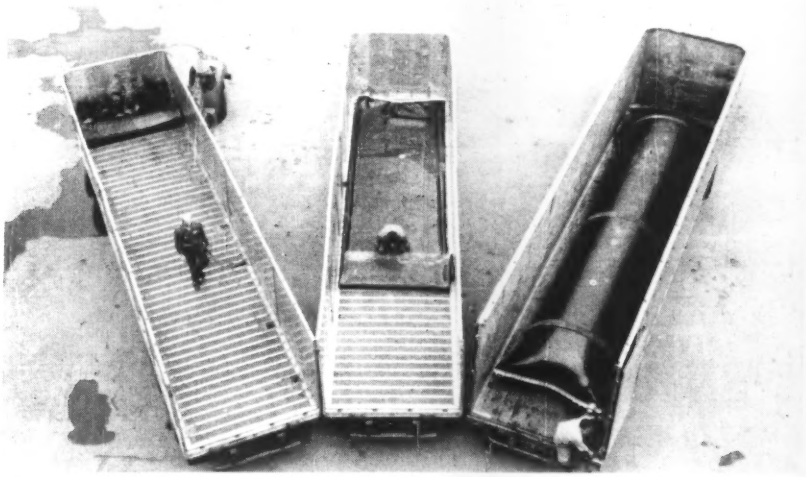
"Despite the gains from scientific methods to establish market potentials, quotas, and supervision," observes Professor Davis, "there still remains a large element of guess-

Converting Carriers for Wet or Dry Cargo



This giant container holds 3,800 gallons.

Looking like a Brobdingnagian toothpaste tube, this new rubber-fabric container will bring big changes to transportation. It makes possible, for the first time, the hauling of dry cargo in one direction and liquid in the other, thus putting an end to costly dead-heading. The Nutrie Corporation, Waltham, Mass., transports liquid alum in the rubber tank to paper mills and then loads the trucks with lumber, paper, or pulp for the return. Developed by United States Rubber, the Sealdtank will be available in various sizes for trucks, railroads, and barges.



When empty, the container can be rolled up and stored in the trailer for the return trip.

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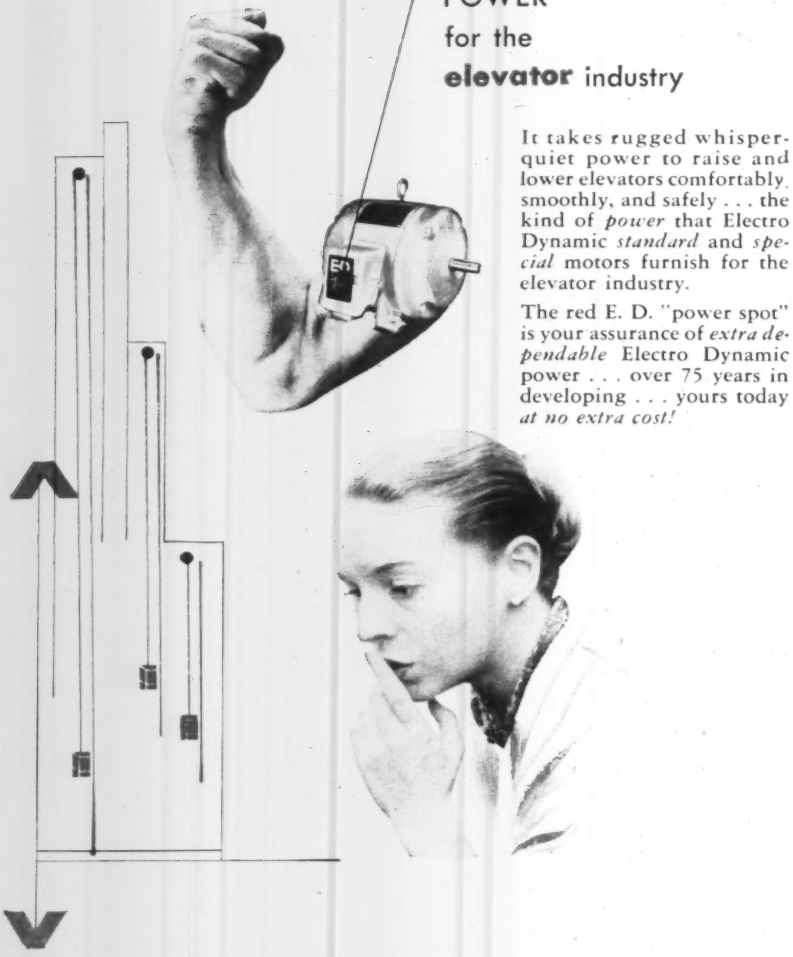

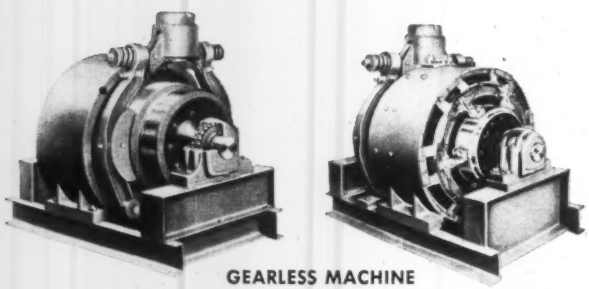

GEARLESS MACHINE

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work when it comes to determining a salesman's productivity. The combined effects of advertising, product improvements, price shifts, and other changes in the marketing mix frequently cloud the picture of why sales have materialized. Moreover, the impact of personal selling, as is the case with advertising, is often deferred, thereby limiting the opportunity to relate efforts and results. And there always exists that most significant unknown—business conditions."

He adds that since it is so difficult to measure salesmen's productivity, few companies have attempted the chore. Comparatively speaking, more concerns have applied job evaluation to selling, but this area too is largely neglected. And most sales managers, who like to rely on their own judgment in sizing up their men, see little need for supplementing their subjective opinions with more objective measures of productivity.

In addition, salesmen are frequently skilled at selling themselves to management. In the absence of objective measures of productivity, they often bargain persuasively and effectively for higher pay.

Truckers say "Roger"

Airport-style traffic management has been adapted to trucking at the Rolled Steel Corp., Skokie, Ill. On arriving at the warehouse, the driver reports in on a phone within reach of the cab and receives docking instructions from the dispatcher. Because this prevents costly traffic snarls, it's an important time-saver.

Since there is a scarcity of data on sales salaries, most companies rely on word-of-mouth reports, but these are often biased and provide too small a sample to base decisions on.

In general, Professor Davis says, "there is a real need for sales managers to take a longer and harder look at the problems surrounding the *level* of compensation as well as the problems of the *method* of compensation."

Salesmen on the runways

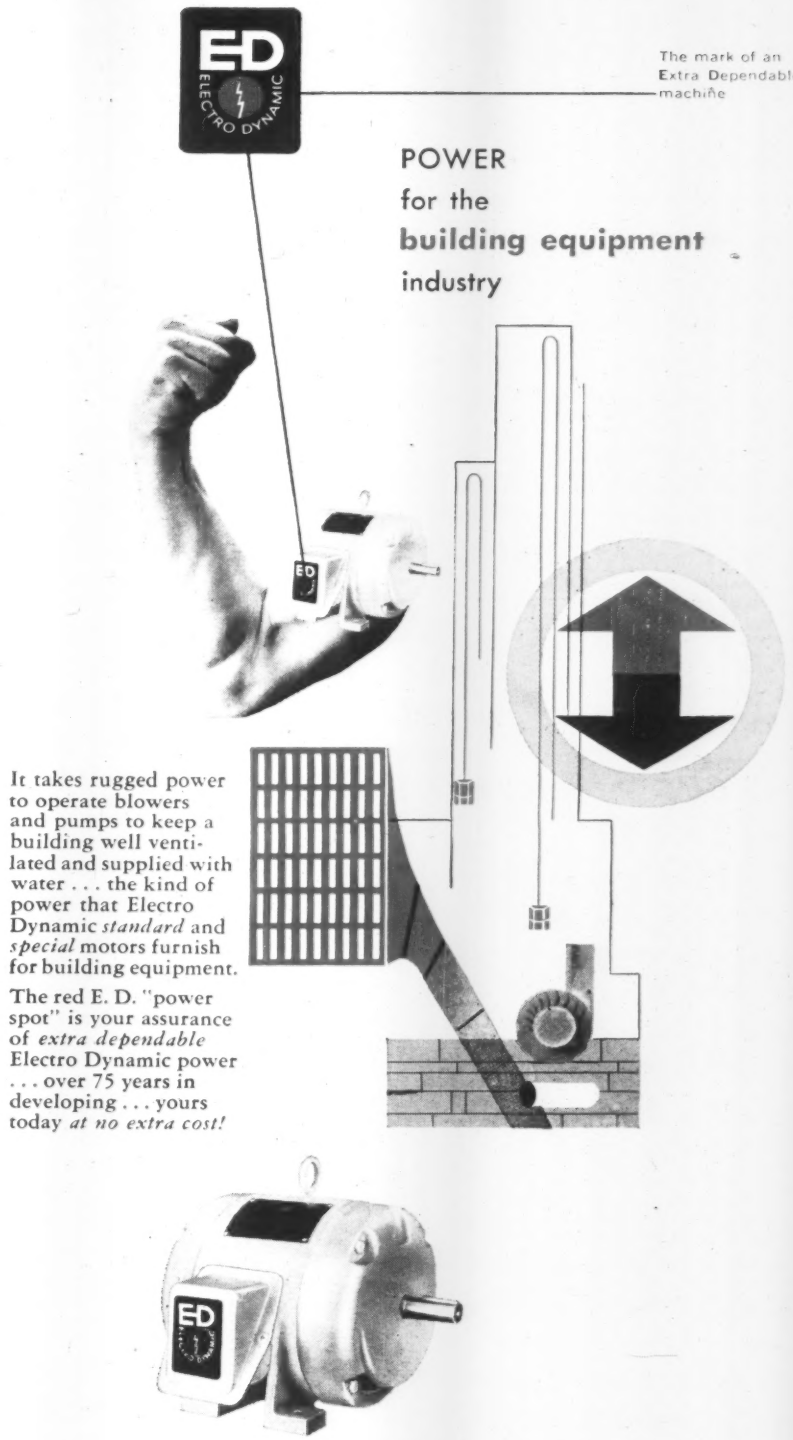
As demands on his time have multiplied in recent years, the salesman's job has become a many-splintered thing. But some companies are making considerable progress in cutting out the nonessentials (see DR&MI, March 1957, page 46).

One company has hit upon a real time-saver by tailoring its annual sales meeting to the air age. H. H. Robertson Company, a Pittsburgh manufacturer of building products, is flying its 150 salesmen to Pittsburgh and plans to conduct all sessions right at the airport. A. W. Hedgren, sales vice president, explains that this will save valuable time otherwise spent in travelling between the airport and Pittsburgh and then from the hotel to company headquarters.

Like many companies, Robertson has traditionally had one sales conference each year, attended by all salesmen. But, according to Mr. Hedgren: "We found the traditional annual sales meeting has at least one major drawback. It leaves sales offices unstaffed and unable to handle business during this period." So this Fall the salesmen are coming to the Pittsburgh meetings in four groups.

Point-of-sale billboard

To push a new slogan contest, Crosse & Blackwell, Baltimore, decided to use its new two-can multipack carton. On the sides of the package, which is designed in a bold red and blue, appears an announcement of the contest, directing the buyer to look for details on the backs of the can labels. Container Corporation of America, designer of the package, believes that this is the first use of a multipack to advertise a national contest. —T.K.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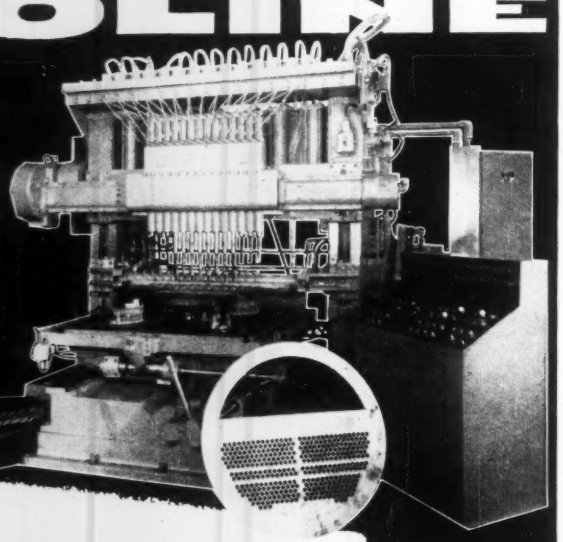

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107

PURITY AND PROFITS

continued from page 46

people have a variety of super-accurate new process instruments to indicate whether impurity limits are being exceeded at any point in the process. For example, the mass spectrometer, a rare sight in laboratories ten years ago, is now available as a process analyzer for chemical, petroleum, and petrochemical plants. The steady reworking of sensitive laboratory instruments into quality control devices and then into rugged process-control machines is giving production men new weapons to maintain or gain product purity. (See last month's DR&MI, p. 56, for a discussion of infrared instruments in controlling impurities.)

If the production man can't always control his sources of raw materials, he can at least make sure that the materials are not further contaminated in the shop. Moisture is a major impurity in many products, particularly nylon molding powder. In molding nylon parts, it is important not to open the drums of molding powder until just before they are dumped into the molding machine. After the "flash" or scrap is removed from the freshly molded part, it must not be allowed to cool and thereby absorb moisture before it is ground up and dumped back into the machine. Once the nylon has been made into a gear or other component, the water it absorbs is no problem—it actually makes the nylon harder.

Plant Environment Counts

As increasingly pure materials are handled in the plant, management has to go one step beyond controlling personnel—and control the plant environment. This doesn't mean completely air conditioning a factory, although more and more plants are being air conditioned to gain a variety of benefits. If water is the villain, humidity control is the answer. If dust is the contaminant, dust removers are widely available. Sometimes only one critical stage or room requires environmental control. If the process itself can be enclosed and requires no operators, environmental control is much cheaper.

Many production processes require large amounts of water, and water purification equipment is becoming common in many plants, especially those that have to reuse

water on account of local shortages.

Increased purity and more purity levels are making new demands on industrial salesmen. Technical training is generally necessary to sell raw materials, and many companies are actually hiring young men straight out of engineering schools for training as "sales engineers." Selling customers on the benefits of a new, higher-purity material can't be done by high-pressure methods. Salesmen must know enough about engineering to explain exactly how a new material will affect the operation and how much money it will save. They must also have an intimate knowledge of the purity requirements of the market, so that they can sell bulk shipments quickly to a second customer if the original customer cancels the order or rejects a lot.

Management must back up the sales force with a sound quality control system. If a salesman sells one purity level, and the plant ships a batch that doesn't meet the customer's specifications, that salesman is likely to have difficulty the next time he approaches the customer. In some companies maintaining purity is of such major marketing concern that the quality control people report to the sales manager.

How Many Grades to Offer?

The sales manager also can offer valuable advice on how many grades of purities to produce and market, although this is still a top management decision that calls for expert knowledge of all phases of company operations. Obviously it is easiest to produce just one grade. Yet offering a number of grades insures that the demands of a larger number of customers will be met. How does a company decide what to do?

The Linde Company, a division of Union Carbide Corporation, has adopted the rule of "mass use." Where demand for a product is overwhelmingly for one grade, only that grade is produced. But if the material is new and most of the uses for it have not been explored, offering a number of grades gives a company the best chance of finding customers. For example, Du Pont offers four different grades of high-purity silicon—the highest for high-power transistors, the lowest for solar cells.

Frequently, company size determines the number of grades offered. Small companies may simply lack

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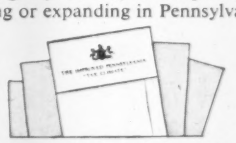
The 1957 Session of the General Assembly (the Commonwealth's legislature) which adjourned in June made the following basic tax changes:

1. Exempted manufacturers from the capital stock and franchise taxes;
2. Completed, state-wide, the elimination of machinery and equipment from local, ad valorem property taxation (there is no state-level general property tax in Pennsylvania);
3. Repealed the tax on stock transfers;
4. Made the temporary 3 per cent rate of the Pennsylvania Sales Tax permanent—now the principal source of Commonwealth revenues;
5. Reduced the sales tax on purchases made by manufacturing firms.

These changes, plus the absence of a state personal income tax, and the growing dependence of localities on non-property taxes, mean major "advantages", taxwise, to companies locating or expanding in Pennsylvania.



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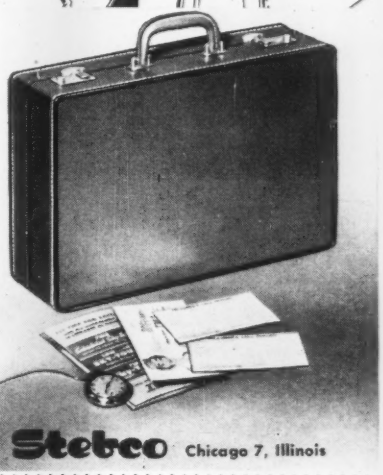

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the facilities to stock and distribute more than a few grades. Also, bigness can sometimes be essential to production of a very pure product. Since the crucible or reactor is frequently the unavoidable source of contamination, a big reactor produces a purer product than a smaller reactor, because the surface area per unit of volume of a container decreases with increasing size.

Taking Pot Luck

Sometimes the grades offered are determined by the characteristics of the natural raw materials consumed. At the zinc smelters of the St. Joseph Lead Company in Josephtown, Pa., an emission spectrograph is constantly analyzing the product. When some zinc emerges that is lacking in one of the usual impurities, the operator pays close attention to the spectrograph. As soon as the impurity starts to appear again, he cuts off that particular batch and it is cooled separately. Then the company's salesmen are alerted to look for a customer who will pay a premium for this specially pure zinc.

The zinc industry is one that has particularly benefited by developing a new, higher grade. Back in the 1920's, the highest commercial grade of zinc used as a base for die-casting alloy contained just enough lead and bismuth (far less than 1 per cent) to make it particularly vulnerable to moisture. Die-cast zinc handles sometimes broke off in the owner's hand when he tried to open the door of his car. By electrolytic or distillation methods, the zinc was refined to a purity of 99.995 per cent. Now "special high grade" makes up nearly half of American production.

Although producing more than one grade is a production problem, the situation can have its compensations. If a batch doesn't meet the highest specs, it usually can be put into service at a lower level. For instance, at the Corning Glass Works a batch of fused silica that doesn't meet the exacting standards for ultrasonic delay lines is downgraded for use in ultraviolet equipment. If it fails there, it can most likely still meet the specs for optical instrument glass.

The best general advice on the problem of purities is to offer a number of grades in new, rapidly changing fields where demand is still low, and fewer grades in stable, heavy-tonnage markets.

There is no point in producing and selling a highly refined product and then allowing it to become contaminated en route to the customer. The traffic manager plays an important role here in maintaining product purity. He must make sure that the container is not porous to contaminants and is chemically inert.

To insure the purity of its chemicals, Allied Chemicals owns fleets of special barges and tank cars. Certain barges and cars are reserved for only one chemical and are not used to transport any other.

The ideal would be a tank car that could carry any kind of chemical or food product. To this end, General American Transportation Corporation, Chicago, is conducting an extensive research program to develop new inert interior coatings for its rented cars.

Payoff for Purchasing

The purchasing agent, to return to material-using outfits, can play a vital role in making sure that a company is not paying for more purity than it needs: he should question each purity spec at regular intervals. The story is told at one of the leading ethical drug manufacturers of the new purchasing agent who went around questioning all the purity specifications. He discovered enough instances of buying unnecessarily high-grade materials to save a lot of money—and earn himself a handsome bonus. Another example is the experience of the steel mills last Spring when there was a shortage of high-purity oxygen. The mills switched to a lower-purity gas known as "tonnage" oxygen for use in furnaces. To their surprise, they discovered that the lower grade was satisfactory for many operations.

Of course, the purchasing agent can carry this "show-me" attitude too far. One researcher complained bitterly that his company's purchasing agent always buys the cheapest chemicals for the research lab. The research staff has to spend hours of its valuable time purifying 15 cents worth of chemicals to a level they can buy for half a dollar!

The purchasing agent must also be instructed in the proper techniques of sampling high-purity materials and in proper storage. One P.A. in a rectifier plant sampled each block of selenium in a shipment when it arrived, and then stored it in a ware-

house full of open drums of oil. By the time the blocks reached the production line a week later, enough oil vapor had been absorbed through the breaks in the polyethylene packaging to ruin all the rectifiers.

To understand the need for high-purity materials and their handling, and how to interpret the many specifications prepared by the great national organizations that set purity standards, the P.A. needs technical training. Not only must he be technically competent, he must be business man enough to appreciate the effect of changing markets on the availability of pure materials. When supplies are tight, manufacturers of raw materials naturally concentrate on producing their higher-cost, purer grades. Purchasing agents must know when to stockpile to avoid paying a premium for unnecessary purity.

Sometimes, of course, supplies will become so tight even the most far-sighted purchasing agent can't stock up on material. And there is an economic limit to stockpiling.

Bargain-hunting is only commonsense for purchasing agents. They should have their lines of communication out so that they will learn of materials rejected by other manufacturers, but satisfactory for their needs. At Federal Pacific Electric Corporation in Newark, N.J., the purchasing agent saved thousands by buying some carloads of urea molding powder prepared for button manufacturing. Little flecks of red in the plastic made it unsuitable for buttons, but its electrical and mechanical qualities were unaffected.

Purity and Planning

The fastest-growing companies in the United States today are characterized by sales of new products that didn't exist ten and sometimes five years ago. These new products frequently depend on new, purer materials that were hardly known when the products were developed. Similarly, the new products of the future will demand new, purer materials. The manufacturers who are equipped to produce and market—or use—these materials will reap the benefits. Those that never question their old materials will face contracting markets. Coordination of every department in a manufacturing company is necessary to gain the substantial future profits that are based on purity.

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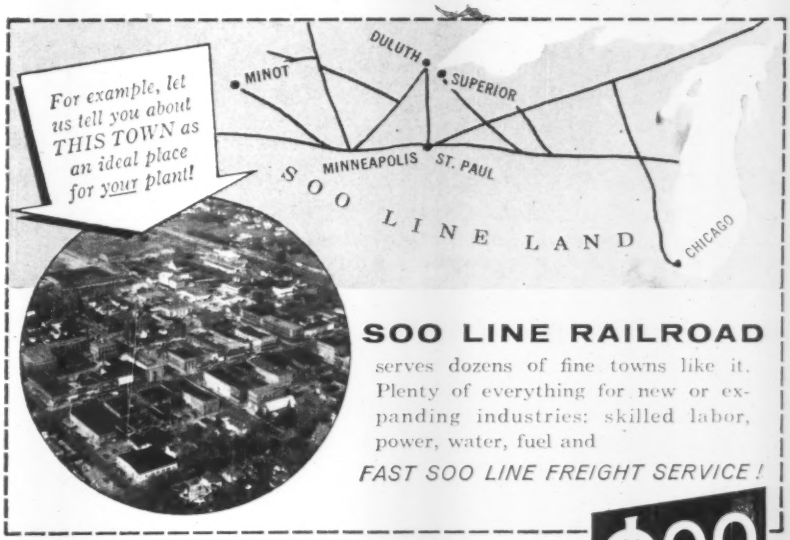

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SALES PROMOTION COMES INTO ITS OWN

How do you draw the line between sales promotion and advertising? Where should sales promotion fit into the company organization? New survey provides answers drawn from current company practices.

FACE-TO-FACE selling is the oldest form of marketing, and advertising, which came into its own with the advent of newspapers and periodicals, got its start long before in the form of shop signs. Sales promotion, by contrast, is a newcomer—and many companies, knowing its importance, still have trouble deciding exactly what it is and where it belongs in the marketing set-up.

To clarify the status of sales promotion in the modern marketing organization, Professor Albert W. Frey of the Amos Tuck School of Business Administration, Dartmouth College, recently conducted a study among producers of consumer and industrial goods. Ninety-three sales promotion managers and 139 sales promotion managers who were also their company's advertising managers cooperated in the survey.

Most Make the Distinction

Judging from their replies, most companies now consider sales promotion an activity in its own right, distinct from advertising. In 77 per cent of the 232 companies, the distinction is formal, and in many others it is informally recognized. One hundred of the companies have separate sales promotion budgets.

Some comments from those who see sales promotion as a separate function in the total marketing effort:

- "Neither advertising agencies nor sales departments have a full understanding of what is involved."
- "A sales promotion manager's responsibilities are to do the thinking, to negotiate the marketing program which the sales manager is too busy to do and the advertising manager doesn't know how to do."
- "Sales promotion is the other half of the job begun by national advertising which, by itself, cannot complete the sale—at least in our business."
- "Sales promotion should always be treated as a separate function—no matter how interrelated and connected to advertising it becomes—because it's so important to support sales on a broad front, and the whole idea of sales promotion is conducive to the broader thinking and action that modern merchandising requires."

The minority who thought the function should be part of advertising or sales argued that sales promotion was so closely related to the other marketing functions that separation was artificial.

- "I feel that it's a question of interpretation that can have no effect on the job to be done," one man said. "It's strictly academic."
- "My university professor taught

WHERE THE SALES PROMOTION EFFORT IS DIRECTED

KIND OF PRODUCT MANUFACTURED	NUMBER OF COMPANIES	SALES PROMOTION TARGETS (% of total effort) SALESMEN	MIDDLEMEN	CONSUMERS	OTHERS
Consumer Goods....	70	22.4	44.8	32.4	0.4
Industrial Goods....	32	21.7	26.0	44.3	8.0
Both.....	59	18.0	40.4	32.8	8.8
Unspecified.....	5	23.0	26.0	31.0	20.0
WEIGHTED AVERAGES		20.7	39.1	34.8	5.4

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me that advertising and sales promotion were separate functions, and it was desirable to have them separated in the sales organization," another wrote. "Years of experience have shown me that quite the contrary is desirable. The problems of each are so similar and they work so closely together that I now hold that a single person should head both functions, reporting directly to the top sales executive. This is so in my case, and I would not be a part of any program otherwise set up."

• "In my opinion separation is appropriate principally as a budget convenience only," said a third. "Some of the so-called sales promotion activities are hardly distinguishable from advertising activities."

As to a definition of the function, and the way in which it differs from advertising—which is, of course, also designed to promote sales—the great majority of the sales promotion executives participating in Professor Frey's survey felt that the term "advertising" should cover only (1) selection of the media through which a company will transmit its message to consumers and the trade; (2) buying space or time for the message; and (3) composing and presenting the message. Sales promotion, on the other hand, was defined as the effort to "educate and arouse the interest of salesmen, middlemen, consumers, and perhaps others through a variety of materials, tools, and devices controlled by the company itself."

Place in the Organization

Where does the sales promotion department fit into the company organization? Of the 162 sales promotion managers who answered this question, 74 reported to sales executives, 49 to general management executives, ten to advertising executives, and five to executives responsible for sales and advertising or sales and merchandising.

To whom the sales promotion executive reports seems to depend largely on what groups his efforts are mainly designed to influence. Where sales promotion is part of sales, the reason is generally that the promotion is designed primarily to inform and interest the company's own salesmen.

Usually, however, companies direct only about one-fifth of the sales promotion effort at their own sales-

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man, as the table on page 126 (based on survey findings) shows.

The middleman is usually the prime target of the consumer goods companies, while industrial goods promotions are aimed mostly at the consumers—probably because most producers of industrial goods sell directly to the user.

Where *should* the sales promotion department report? In Professor Frey's view, the most logical and rewarding arrangement is to put sales promotion, advertising, selling, and merchandising under a single top marketing executive, perhaps a vice president for marketing.

Wanted: Idea Men

What qualifications should the sales promotion man possess? Above all, said the men who answered this question, he must be creative, capable of producing new ideas—and he needs to develop more of them, perhaps, than anyone else in the organization. Ability to work under constant pressure and enjoy it also ranked high in the responses. It was also agreed that he must know his product and his market.

It may not, of course, be strictly necessary to have a special department to produce sales aids, bulletins, product information sheets, and other promotional tools. A company can get along without a separate sales promotion activity, says Professor Frey, and a good many do. But "sales promotion buttresses and strengthens a marketing operation, magnifying a company's profits and position."

"Could I start going to lunch a little earlier, sir? They've changed the hours at the mission kitchen."

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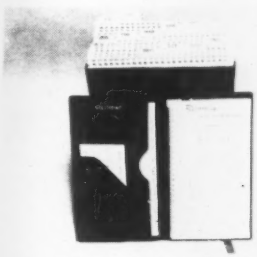

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THE MEASURE OF A BIG MAN

THE HALLMARK OF LEADERSHIP in any man is a sense of obligation. For the true leader, belief in anything carries with it a personal responsibility that may make heavy demands on his time and energy. It entails commitments that are not assumed or delegated casually. It may involve a sense of obligation to an industry through its trade association, to a community through its Chamber of Commerce or school board, or to a church through its lay management—no matter what the cause, the man with the impulse to serve gives generously of himself.

The sense of obligation often grows into a life of dedication. Examples and incidents from one's own industry, profession, or calling come readily to mind. Offered an opportunity to consolidate his plant with another company in a distant community, a small manufacturer refuses to sell, even though he can take a substantial profit and get another job that is a sinecure. He feels a personal responsibility to the 200 employees in his plant as well as a loyalty to the community, which would suffer a severe economic shock if he sold. There may be times when such moves are dictated by necessity, but it is inspiring to know that an individual looks beyond material rewards and seeks benefits that are of social significance.

The incidents need not be so completely ennobling. The man who is generous with time and talents is often paid back in kind by the response of neighbors, customers, employees, and even by the response of the typical stockholder, who is seldom an altruist. When a leader of business or industry heads a campaign to beautify a community and begins by dressing up his own premises to eliminate the industrial eyesores left by a less responsible generation, he wins more than approval and good-will. Profits follow the plaudits, even though his impulse was more esthetic than selfish. No man can invest his energies in worthy effort—whether narrowly for an industry or community, or broadly for the welfare of society—without getting some accidental benefits. The inner sense of satisfaction may be compensation enough, but it usually isn't the sum total of the payment for the investment.

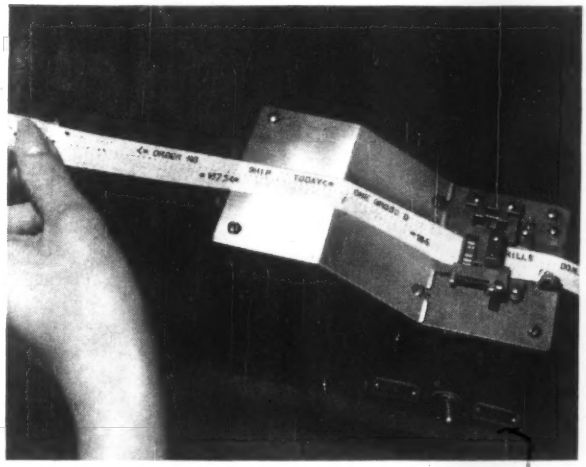
The world of business is material and dimensional, but the scope of leadership includes values which give meaning and purpose to the day's effort in the marketplace. In competition, enlightened leadership has set up standards in quality of materials, in performance of service, in truth of advertised claims, and in behavior in the sales arena. All this progress comes from the action of the few who inspired, shamed, or converted the many. Theodore Roosevelt, one of the prime movers of antitrust legislation, is credited with the remark: "Every man owes part of his time to the industry in which he is engaged." Every worthwhile advance in business and industrial practice can be traced to the vision and persistence of a leader who went beyond the sphere of his own personal benefit to serve an industry.

Commercial law is a regulatory pattern of guidance with well-defined threats for non-conformance, and in a complex industrial society it is a necessity. But no statute can invoke respect or obedience unless the spirit of self-restraint is first evident in the man who puts his money, time, and talents to risk.

Modern leaders in management are well aware that the term "free competition" cannot mean unrestricted action. Business actions are free only in the sense that we do have something to say about the rules of the game. That is why there is now such an urgent need of leadership with a sense of obligation to the total economy, in a day when the whole world vibrates to the shift of a decimal in our business progress.

The Editors

HOW PRIVATE LINE COMMUNICATIONS SERVE AMERICAN INDUSTRY



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2. Field order is processed in a matter of minutes at Des Plaines, then passed to warehouse in the same building.

3. Order is filled from the 15,000-item central stock DoALL maintains in Des Plaines for all sales stores.

4. Shipment is on its way within an average of two hours from the time the teletypewriter request was received.

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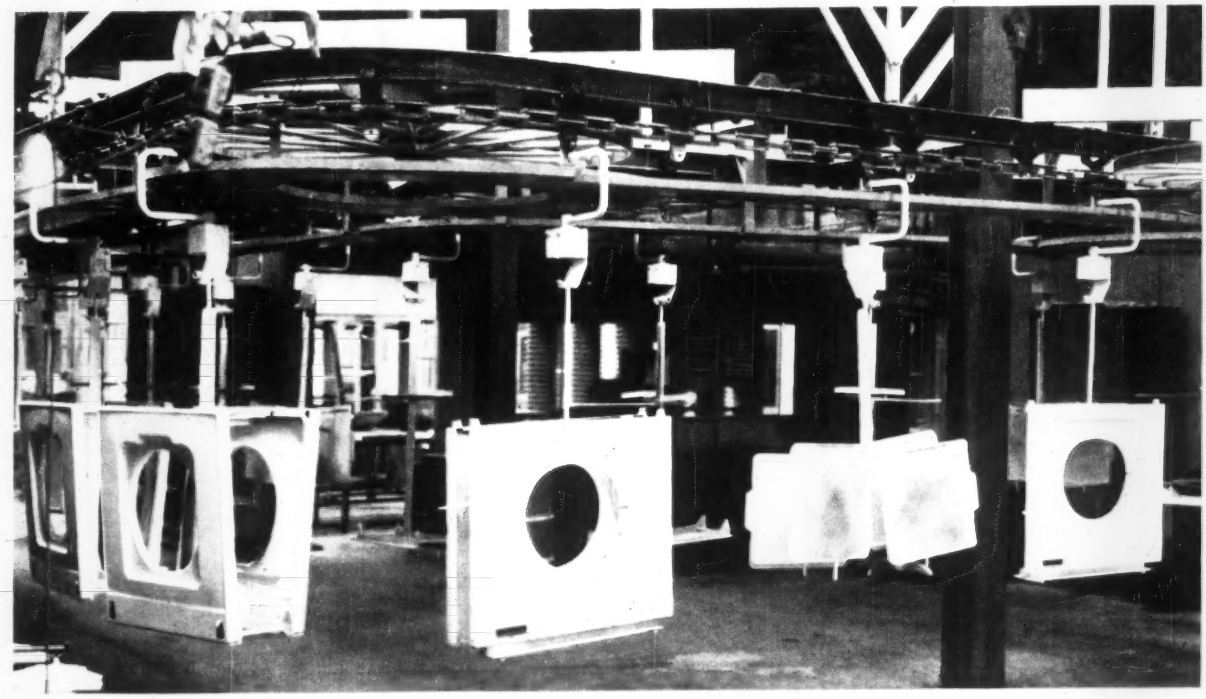

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